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ABSTRACT

This training module includes a trainer's manual and a participant's manual designed for school psychologists and concerned with the appraisal process for students with suspected handicapping conditions. The instructor's guide presents a script for covering seven major steps in the appraisal process (sample subtopics in parentheses): (1) pre referral phase (defining referral problems, collecting anecdotal data); (2) referral/screening phase (evaluating resources to assist in referral problem solving, designing classroom alternatives for identified problems); (3) pre-assessment phase (developing key assessment questions); (4)comprehensive individual assessment phase (assessing severely/multihandicapped persons, and assessing infants and preschoolers); (5) assessment report phase (integrating data into a comprehensive report); (6) educational planning phase (relating as a team member in the decision making process); and (7) educational intervention phase (understanding the concept of least restrictive environment. Transparency masters, worksheets, and resource guides for each of the seven phases are included. This module is one of three training modules designed for the National School Psychology Inservice Training Network. It is intended to be presented prior to the related modules on "Nonbiased Assessment" and "Non-Test-Based Assessment," as this module integrates and links together the content of the other two modules. (CL)

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SEQUENTIAL STAGES OF THE APPRAISAL PROCESS

A TRAINING MODULE

James Tucker
Educational Directions Incorporated
Austin, Texas

A project of the National School Psychology Inservice Training Network
University of Minnesota, Minneapolis, Minnesota

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The material presented herein is one of three modules on the topic of assessment developed and produced for the National School Psychology Inservice Training Network, James Ysseldyke, Director.

Minneapolis, Minnesota
1981

Additional copies of this module may be ordered from the National School Psychology Inservice Training Network, 350 Elliott Hall, University of Minnesota, Minneapolis, Minnesota 55455. Prices for single and multiple copies will be furnished upon request.

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USER'S GUIDE

Instructor's Guide
USAGE SUMMARY

RATIONALE

This module is designed to present the major sequential steps in the appraisal process, to give an overview or framework for assessing students, and to integrate the content of the modules on *Nonbiased Assessment* and *Non-Test-Based Assessment*. Assessment is a popular and often controversial topic in education. With the advent of P.L. 94-142 and its endorsement of multidisciplinary assessment teams, it appears imperative that assessment professionals develop a set of nondiscriminatory comprehensive procedures for managing referrals for assessment. Staff and resources available for assessment are limited; thus, the use of a consistent screening process will facilitate the identification of only those students who need comprehensive evaluations. Following pre-referral and screening procedures consistently will enhance student assessments and reinforce individualizing remediations for students through a wide array of school services such as bilingual education, Title I programs, reading programs, school sponsored tutorials, and programs for gifted and talented students, in addition to a wide array of special education program options. In this module it is emphasized that appraisal is not finished once screening and assessment have taken place. Two additional important steps follow a comprehensive individual assessment: educational planning and educational intervention. Once a student is identified as eligible for special education services, the primary handicap must be viewed from the perspective of the "least restrictive" educational program. Some cautions and important safeguards and procedures take place during educational planning and intervention. The purpose of the module is to clarify and describe the important sequential steps toward guaranteeing an appropriate educational program for a student.

USER

This module is one of three training modules designed for the National School Psychology Inservice Training Network. If possible it should be presented prior to the modules on *Nonbiased Assessment* and *Non-Test-Based Assessment* as this module is intended to integrate or link together the content of the other two modules. The workshop is designed to take place either over a sequential two-day period or in four three-hour presentations. This design lends itself to a two-day inservice or four half-day presentations.

DIRECTIONS TO PRESENTER

While a script is provided, the presenters should be familiar enough with the workshop material so that the script is not "read" to the participants. The sessions will be far more interesting if presenters make the workshop their own, modifying the script and examples to suit their individual styles and training experience.

WORKSHOP OBJECTIVES

Upon completion of this workshop, the participants will be able to:

1. Identify the major sequential steps in the appraisal process.
2. Recognize the integration of all three modules including how *Nonbiased Assessment* links with *Non-Test-Based Assessment*.
3. Cite specific steps within each of the seven appraisal phases.
4. Define referral problems.
5. Describe how to collect anecdotal data, generate classroom alternatives prior to assessment, and operationalize a good referral for appraisal.

6. Develop key assessment questions.
7. Determine the multidisciplinary team needed for a comprehensive assessment.
8. Recognize the effects of decision making based on traditional tests.
9. Build a comprehensive picture of children referred for assessment.
10. Note special considerations for assessing preschool age students, infants, and students with low incidence handicaps (i.e., deaf/blind, cerebral palsied).
11. Address measurable aspects of eligibility for special programs.
12. Specify educational need in terms of "adverse effects" (a P.L. 94-142 requirement).
13. Integrate all available assessment data into a comprehensive report.
14. Determine when a report is jargon-free and understandable to parents.
15. Determine eligibility based on measurable elements of state and federal definitions.
16. Recognize various forms of bias in the educational planning process.
17. Work with measurable goals and objectives for educational intervention.
18. Understand the concept of "least restrictive environment."
19. Evaluate student progress in terms of behavioral/educational and curricular goals and objectives.

To meet these objectives, the participant will:
—complete the worksheets for the module.
—participate in the group activities.

CONTENT OUTLINE

I. OVERVIEW OF MODULE
   A. A context for school psychological services
   B. The pre-referral to intervention process: The structure and use of this module
   C. Integration of this module with the modules on *Nonbiased Assessment* and *Non-Test-Based Assessment*

II. PRE-REFERRAL PHASE
   A. Defining referral problems
   B. Measuring referral problems: Collecting anecdotal data
   C. Discriminating unique problems from normal fluctuations in development

III. REFERRAL/SCREENING PHASE
   A. Generating classroom alternatives for identified problems
   B. Evaluating resources to assist in referral problem solving
   C. Screening referrals for significant problems
   D. Designating other educational alternatives
   E. Operationalizing a good referral for assessment

IV. PRE-ASSESSMENT PHASE
   A. Developing key assessment questions
   B. Determining the multidisciplinary team needed for comprehensive assessment
   C. Factors influencing decision making on test results

V. COMPREHENSIVE INDIVIDUAL ASSESSMENT PHASE
  A. Building a comprehensive picture of the child
    1. Addressing measurable aspects of eligibility for special programs
    2. Specifying educational need in terms of "adverse effects" (a P.L. 94-142 requirement)
    3. Insuring specification of precise educational competencies
  B. Basic concepts in developmental assessment
    1. Norm referenced and psychometric tests
    2. Criterion referenced tests
    3. Piagetian based scales
    4. Rating scales
    5. Observational procedures
  C. Contrasting perspectives of development
    1. Romanticism
    2. Cultural transmission
    3. Progressivism
  D. Special considerations for infants and preschoolers
    1. Models
    2. The sequence of development
    3. The selection of formal tests
  E. Assessing severely/multihandicapped children
    1. Classification considerations
    2. Assessment considerations
    3. Selection of formal measures
    4. Testing deaf/blind persons
    5. Testing orthopedically impaired persons
    6. Testing multihandicapped persons
    7. Testing severely mentally retarded persons
    8. Summary

VI. ASSESSMENT REPORT PHASE
  A. Integration of data into a comprehensive report
  B. Determining when a report is jargon-free

VII. EDUCATIONAL PLANNING PHASE
  A. Considering educational needs and "adverse effects" as part of the eligibility decision
  B. Relating as a team member in the decision making process
  C. Determining the appropriate placement
  D. Recognizing bias in the educational planning phase
  E. Incorporating parents as integral members of the educational planning team

VIII. EDUCATIONAL INTERVENTION PHASE
  A. Working with and from measurable goals and objectives in evaluating student progress
  B. Broadening the base of program options perceived by school personnel
  C. Understanding the concept of least restrictive environment

WORKSHOP LESSON PLAN

MATERIALS

1. Worksheets for participants
2. Transparencies
3. Overhead projector and screen
4. Newsprint, poster paper and waterbase markers or large chalkboard and chalk

SEQUENCE OF EVENTS

	Time Estimate (in minutes)
1. Welcome and Introduction	5-10
2. Overview of Module	20
Activity 1 — Identify Phases of Appraisal Process	10
Activity 2 — Student & Classroom Characteristics Related to School Failure	15
Integration of Three Modules	20
3. Pre-Referral Phase	20
Activity 3 — Collecting Anecdotal Data	15
Activity 4 — Observation Techniques: Handraising	45
Discriminating Unique Problems from Normal Development	25
Completes first one-half day session — TOTAL MINUTES	180

SEQUENCE OF EVENTS

	Time Estimate (in minutes)
4. Referral/Screening Phase	20
Activity 5 — Generating Classroom Alternatives	15
Evaluating Resources and Screening Referrals for Significant Problems	40
Activity 6 — Designating Other Educational Alternatives	15
Operationalizing a Good Referral	15
5. Pre-Assessment Phase	15
Activity 7 — Developing Key Assessment Questions	20
Determining a Multidisciplinary Team	15
Recognizing Effects of Decision Making on Testing	15
Introduction to Assessment	10
Completes second one-half day session — TOTAL MINUTES	180

SEQUENCE OF EVENTS

	Time Estimate (in minutes)
6. Comprehensive Individual Assessment Phase	10
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Concepts in Developmental Assessment	25
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7. Assessment Report Phase	
Introduction	10
Activity 10 — Integrating Data in the Assessment Report	20
Jargon-Free Reports and Professional Judgment Areas of Traditional Tests	20
Completes third one-half day session — TOTAL MINUTES	180

SEQUENCE OF EVENTS

	Time Estimate (in minutes)
8. Educational Planning Phase	
Introduction	10
Considering Educational Need Based on "Adverse Effects"	15
Activity 11 — Relating as a Team Member	25
Activity 12 — Developing Placement Options	20
Recognizing Bias in Educational Planning	15
Incorporating Parents as Members of the Team	15
9. Educational Intervention Phase	
Activity 13 — Working with and from Measurable Goals and Objectives	25
Broadening Base of Program Options	15
Activity 14 — Applying Concept of "Least Restrictive Environment"	25
Evaluating Student Progress and Closing Comments	15
Completes fourth one-half day session — TOTAL MINUTES	180

WORKSHOP SCRIPT

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OVERVIEW OF MODULE

A Context for School Psychological Services

School psychological services, generally, are tied directly to the process of placing students in special education. This appraisal process consists of several major phases or sequential steps designed to identify among "high risk" students those having a handicap (and in need of special education services) and those in need of some other type of remediation. The skills and knowledge needed by the school psychologist to function as part of this process are extremely varied. Therefore, the nature and provision of psychological services might best be understood and organized by looking at the various major phases of the assessment process.

In order to develop a common base of information from which to discuss school psychological services let's consider what those major phases are in the complete appraisal process.

Take a few moments to respond to page 1 of the participant's worksheets (W-1). Write down what you consider are the major phases or steps in the appraisal process from initially identifying "high risk" students referred from a regular classroom to developing an individualized educational plan.

Give the participants approximately 3 to 5 minutes to complete the task. Then say:

"Now let's see how everyone did. Someone give me their first phase."

Write the response on a chalkboard, clear transparency or on newsprint. Collect at least 5 responses getting general coverage from initial screening through IEP development. Then say:

"Let's compare what has been generated with the phases outlined in this training module."

SHOW TRANSPARENCY 1 (T-1)

Also have participants refer to worksheets W-2 and W-3

Allow a few moments for participants to check their responses against those on the transparency.

You may or may not have included most of these phases or feel that some of these phases should be included as part of another phase. The major points to focus on are (1) which aspects are new to you? and (2) does the content we are about to describe under each phase meet your expectations as to what should be there?

The Pre-Referral to Intervention Process: The Structure and Use of This Module

Before we present the major content areas covered under each phase there is a basic assumption that you should be aware of: We assume that you have certain skills and knowledge within each of these phases that will not be covered in subsequent training. Such skills include administration and interpretation of a basic psychological test battery, some general report writing skills, and knowledge of basic intervention strategies. What we wish to offer in this training are refinements in some skill areas, the addition of some new phases not now being included or considered, and some information about areas which may not have been covered in your graduate training but which you may need as a school psychologist (such as assessing infants or multihandicapped students).

The next 7 transparencies (T-2 through T-8) cover the major content areas in each phase of the appraisal process. Provide a general classifying comment about each one. Point out to participants that they can jot down notes or comments about each major phase on pages W-2 and W-3 of their worksheets. Begin by making clarifying comments for each of the first three phases shown on transparencies 2, 3, & 4.

SHOW TRANSPARENCY 2 (T-2)

Pre-Referral Phase

Defining the problem. How many times have you received a referral problem described as "Johnny can't read" or "He is a behavior problem" with no further information? To determine at this point if a problem warrants referral for assessment, classroom based concerns will have to be clarified through consultation.

Measurement: Collecting anecdotal data on referral problems. This step allows for the initial gathering of records (behavioral and/or academic) which can be used for an initial comparison between the student and his/her peers as a control or norm group.

Discriminating unique problems from normal fluctuations in development. Knowledge about normal stages of development should be consistently applied as soon as possible in the appraisal process. This information, along with utilization of the student's own classmates as a comparison group, should assist greatly in reducing "false positives" when deciding if a referred child is handicapped rather than in need of some other form of intervention.

SHOW TRANSPARENCY 3 (T-3)

Referral/Screening Phase

Generating classroom alternatives.

and

Evaluating resources to assist in referral problem solving. These steps are major attempts to intervene in the regular classroom. The more unobtrusive interventions are frequently more effective for both teacher and student but do require that time and energies of school psychologists and other school personnel be focused at this initial phase of the appraisal process.

Screening referrals for significant problems. This phase involves gradually broadening the scope of assessment. Existing school records are systematically reviewed for information related to the referral problem documented by the teacher. Additional school staff can be brought together for team problem solving regarding the referral problem.

Designating other educational alternatives.

and

Operationalizing a good referral for assessment. These steps represent a second level of intervention and evaluation in which other regular education alternatives (i.e., remedial reading) are tried and documentation regarding success or failure is provided.

If sufficient time and effort are invested in these initial phases several major benefits can be derived for the system and the student:

1. The concept of "least restrictive assessment" is maintained. That is, the student is assessed as close to the classroom environment as possible and with techniques or instruments that are directly related to the problem. The validity of assessment data is inversely related to the distance from the problem or task at which it is obtained. The closer the assessment is to the problem, the higher the validity; the further away from the problem assessment takes place, the lower the validity of the data. Assessing a student's reading problem at the local campus using the actual classroom textbook has greater validity and more accurate carryover into prescribed intervention than administering a standardized reading test in the school psychologist's office and making prescriptive statements for a reading scope and sequence which may or may not parallel the student's actual reading program.

2. Successful interventions applied in a regular classroom or on a local campus through existing remedial resources are less costly to the system and help control adult and student expectations about the student's abilities.

3. True screening efforts reduce the number of students needing a comprehensive individual assessment. This opens up more time to assessment personnel for (a) more thorough individual evaluations, (b) team staffing, (c) follow-up on previous evaluations and recommendations, and (d) application of consultation and problem-solving skills to the entire system.

SHOW TRANSPARENCY 4 (T-4)

Pre-Assessment Phase

Developing key assessment questions.

and

Determining the multidisciplinary team needed for comprehensive assessment. Ideally, a conference should be held at this phase among key individuals (teacher, parent, school psychologist, etc.) who have a direct bearing on the referral problem. All available data should be reviewed and a list of questions developed to fill in information gaps so that an informed team decision can be made at the completion of the assessment.

These key assessment questions form a basis for selecting the most appropriate personnel to participate in the assessment process. In this way a multidisciplinary decision-making team is created and the assessment can be tailored to meet the team's informational needs.

Recognizing the effects of decision making based on traditional tests. Does the collection of assessment data affect committee decisions about the student's educational program? Practitioners should be aware of recent research findings regarding the use of assessment data by placement committees.

SHOW TRANSPARENCY 5 (T-5)

Comprehensive Individual Assessment Phase

Building a comprehensive picture of the child. If assessment questions posed in phase 3 are well formulated, comprehensive assessment involves merely answering these questions. Consideration is also given to these three major questions: (l) Does the student have a handicap? (2) If so, does the student need special education services? and (3) What are the student's specific academic strengths and weaknesses? To answer these three questions, the following steps are necessary:

1. *Addressing measurable aspects of eligibility for special programs.* This step involves identifying the specific aspects of the eligibility criteria for a handicapping condition that can be measured and deciding how to measure them. This part of the assessment answers the question "Does the student have a handicap?"

2. *Specifying educational need in terms of "adverse effects."* The second general assessment question posed is "Has the identified handicap adversely affected the student's educational performance?" How do you determine that? This step answers the question "Does the student need special education services?"

3. *Insuring specification of precise educational competencies.* In this step, we determine what the student knows about an area of instruction and designate the next level or goal in the instructional sequence. In this way academic strengths and weaknesses can be identified.

Basic concepts in developmental assessment.

Perspectives on physical, motor, cognitive, and language development.

and

Special considerations for preschool and infants.

These steps all involve using available information to develop an expectation of what is generally considered "normal" development as well as what assessment procedures to consider in measuring deviations from normal.

Assessing characteristics of severely/multiply handicapped. This step involves sharing information on special considerations which must be taken into account when assessing children with low incidence handicaps.

SHOW TRANSPARENCY 6 (T-6)

Assessment Report Phase

Integrating all available assessment data into a comprehensive report.

and

Determining when a report is jargon-free and understandable to parents.

In the actual written report a question and answer format may facilitate the parents' understanding of the results. The document should relate the problems observed and referred by the teacher to the identified handicapping condition(s) in addition to considering influences such as minority group membership, if applicable.

SHOW TRANSPARENCY 7 (T-7)

Educational Planning Phase

Considering educational need and "adverse effects" as part of the eligibility decision. At this stage the planning team documents which of the eligibility criteria were met, taking into consideration the student's needs and current "adverse effects" on educational performance. A student with a handicapping condition may need to remain in regular education if the educational need is not present. Due process considerations should also be reviewed at this stage.

Relating as a team member in the decision-making process. Active participation of each member should be encouraged in order to facilitate a team decision. Recent research has indicated that some "team" decisions are actually made by an individual or with lack of support from assessment data.

Determining most appropriate placement. Least restrictive environment considerations are often ignored in this phase. Decisions may be facilitated by using a checklist.

Recognizing various forms of bias in the process. Bias in the decision-making process can occur for a variety of reasons. Minority group status, socio-economic status, the nature of the referring problems, and physical traits of the individual all should be considered in looking for bias.

Incorporating parents as integral members of the educational planning team. It is crucial that parents be involved in the planning phase and that other team members help them to be as comfortable as possible with this role.

SHOW TRANSPARENCY 8 (T-8)

Educational Intervention Phase

Working with and from measurable goals and objectives. All goals and objectives should be tied directly to data. For example, if problem behaviors identified throughout assessment indicate a math problem, then the I.E.P. should not be produced to remediate reading.

Broadening the base of program options perceived by the school personnel. This includes alternative resources a school psychologist might provide in addition to the traditional assessment role.

Understanding the concept of least restrictive environment.

and

Evaluating student progress in terms of goals and objectives. These steps involve general considerations in LRE and ways of evaluating student progress.

Another way of conceptualizing the provision of school psychological services is to consider the question "Why does a student fail?" from two perspectives (1) the individual and (2) the school system.

Turn to page 4 of your worksheets and respond to this question by listing some major reasons a student might fail as a function of student characteristics and why a student might fail as a function of school system characteristics.

Give the participants approximately 5 minutes to complete the task. Then say:

"Now let's get some examples from the group; first some student characteristics related to failure."

Write responses on a chalkboard, clear transparency, or newsprint. Collect 4 or 5 responses, then say:

"Now let's have some examples of school system characteristics related to failure."

Write responses again. Collect 4 or 5, then say:

"Let's compare the group's examples to the ones provided here and see if we have covered some of the major areas."

SHOW TRANSPARENCY 9 (T-9)

Allow a few moments for participants to check group responses. Call out each example in student column then school system column and check to see if mentioned by the group. If so, simply reaffirm agreement. If not, simply make note that here is another major element to consider when assessing students.

The school psychologist must keep in mind the interaction of student characteristics and school system characteristics in providing services. The possibilities for failure exhibited by a student may or may not result in a problem depending on characteristics of the school environment and vice versa. In this module we discuss psychological services as being provided to an individual interacting with a school system. Emphasizing least restrictive assessment along with a "normal" development perspective of behavior, we intend to proceed through the various appraisal process phases offering information not typically and/or consistently found in graduate training programs. The overall goal of the module is to arrive at a more complete picture of the student than is usually found when psychological services primarily consist of assessment to determine presence or absence of a handicap.

Integration of this Module with the Modules on Nonbiased Assessment and Non-Test-Based Assessment

If possible this module should be presented prior to the other two since they deal with more discrete aspects of the overall appraisal process.

SHOW TRANSPARENCY 10 (T-10)

The module on Nonbiased Assessment covers these major areas:

— Basic considerations
— Legal principles
— Sociocultural considerations
— Understanding language characteristics
— Nonbiased educational assessment
— Nonbiased assessment of mildly retarded students
— Nonbiased assessment of emotionally disturbed students

SHOW TRANSPARENCY 11 (T-11)

The module on Non-Test-Based Assessment emphasizes 3 major assessment methods to be used as an adjunct to standardized tests: interviewing, observations, and curriculum-based assessment. In addition to establishing a basic set of concepts and skills within each method, the module is designed to facilitate the training of others to gather information using these approaches. In this way multidisciplinary assessment is enhanced and the process becomes more time-efficient.

Interview-based assessment covers these content areas:

— Listening skills
— Following a logical sequence in an interview

— Recording methods
— Adapting questions for investigating previously unmentioned problem areas
— Collecting interview data from a variety of sources
— Interview data validity
— Establishing interview data reliability

Observation-based assessment covers these topics:

— Developing effective observations
— Categorizing and sampling behavior
— Recording observation data
— The teacher as an observer
— Uses of observation in intervention
— Interpreting observation data

Curriculum-based assessment covers these topics:

— A basic model of instruction used in assessment
— Determination of levels of instruction
— A method of diagnosis specific to various curricula

In regard to overall integration of the modules, the Nonbiased Assessment module deals with bias in *all* phases of the appraisal process. The Non-Test-Based Assessment module expands diagnostic skills in phases one through five of the process. There are content areas in this module that are dealt with in detail in the module on non-test-based assessment. These content areas are:

Pre-assessment phase

1. Developing key assessment questions is specifically addressed in the interviewing section of the Non-Test-Based Assessment Module; in addition to assessment questions, three other classes of questions are covered: interview questions, decision questions, and eligibility questions.

Comprehensive individual assessment phase

2. Addressing measurable aspects of eligibility for special programs is also dealt with in the interviewing section of the Non-Test-Based Assessment Module.

3. Insuring specification of precise educational competencies is detailed under curriculum-based assessment in the Non-Test-Based Assessment Module.

General highlights from Non-Test-Based Assessment will be presented in each of these sections. More detailed training and explanations may be pursued in the module sections referenced.

You have presented the content outline for Seven Sequential Phases of the Appraisal Process and a brief overview of how the other two training modules fit into the overall appraisal process perspective. Do you have any questions?

PAUSE FOR QUESTIONS

PRE-REFERRAL PHASE

SHOW TRANSPARENCY 12 (T-12)

For the pre-referral phase there are three major steps. Turn to page 5 of your worksheets and we will now identify those three important steps.

Point to each of the three steps on transparency 12. Have participants note these on their worksheets, page 5.

Within the standard referral systems in which the majority of us work, it is commonplace to receive referrals which provide us with little direction in arriving at a determination of the type of services necessary to aid the referred student. Unfortunately, the lack of genuine effort at this "pre-referral phase" often results in inefficiency in the system, misdiagnosis, waiting lists, and frustration.

Inefficiency occurs because the child's problem has not been defined objectively. Either a standard response (e.g., a routine testing battery) is provided by the school psychologist, or it is necessary for someone to work with the teacher and "start from scratch," redoing or doing for the first time those pre-referral activities which could and should have been conducted initially. Misdiagnoses often occur when the child's problem is poorly defined and we end up "testing" when it is not necessary or focusing our intervention efforts on the wrong behavior (or client).

"Waiting lists" or "backlogs" occur because of the lack of effort (e.g., definition, measurement, intervention) at this "pre-referred state." Each child referred is viewed as possibly handicapped, and this typically locks the psychologist into a testing role. When timelines governing the provision of these "evaluation" services exist, or when social and political pressure in the community and the school system is great, the school psychologist all too often finds an impossible situation with an unreasonably high case load and time only for testing.

In such systems everyone gets frustrated: the psychologist with a narrow testing role and high case load; the parents with the length of time involved in providing services to their child; and the teacher with the time factor and with still having the problem child in the classroom. Most frustrated, though, is the child who must sit and wait for some help and, even when it's provided, continue to struggle because the real problem has yet to be identified.

Defining Referral Problems

While at this pre-referral stage it is typically the teacher who should define the problem and make the initial effort to intervene, it may be necessary for the school psychologist to provide assistance to the teacher in this activity through consultation, modeling, or inservice training.

It is essential that as soon as the teacher recognizes a problem (and certainly before a referral is made), it should be defined and measured, its significance determined, and some alternative educational strategy attempted.

Whenever possible, problem descriptions such as "He acts retarded," "He has emotional problems," "Behind academically," or "Disruptive" should be discouraged and the behavior objectively defined.

The first step in any assessment is, in fact, clarification of the behavioral problem. This clarification is frequently quite difficult and requires conceptualizing the problem in terms of what the child actually does and not in terms of someone's interpretation of the problem. Frequently one is able to objectively define the problem behavior by answering the question "If the child no longer did ____________________, would he still have a problem?" "Poor academic performance," when objectively defined, may actually be "he completes less than one half of his math assignment, and then with less than 50% accuracy." "A poor attitude" may actually mean that the student does not respond to the directions of the teacher to begin work and not talk with peers during seat work. It is vital to the success of any assessment that the child's behavior be specified in terms that permit measurement and subsequent intervention.

Defining referred problems is a process that requires understanding and skill.

SHOW TRANSPARENCY 13 (T-13)

Point to transparency 13 as you note or comment on each of the following guidelines for teachers. Have participants refer to page 5 of their worksheets.

Some suggested pre-referral steps that should be followed by school personnel include:

1. The teacher determines that a child or children are having behavioral problems.
2. The teacher identifies the specific problems for each child.
3. The teacher uses accepted behavioral observation practices for each child and his or her behavioral problem(s).

4. The teacher uses a behavioral checklist or adapts a commercially produced checklist (Quay, Ottawa, Devereaux, etc.) for purposes of collecting behavioral information.

5. The teacher teams up with other school personnel for further data collection and for data verification.

6. Teacher and related personnel determine that the problem is significant.

7. A decision is made to conduct specific diagnostic activities to pinpoint strengths and weaknesses of the child or children.

PAUSE FOR QUESTIONS

Are there any questions regarding steps to follow in assisting teachers in defining referral problems?

MEASURING REFERRAL PROBLEMS: COLLECTING ANECDOTAL DATA

The definition of the initial problem and its measurement go hand in hand when the problem is defined in terms of some objective measure of an observable behavior.

SHOW TRANSPARENCY 14 (T-14)
REFER TO WORKSHEET W-6

For the system to work, the child's problem must be objectively measured in a way which permits the evaluation of the effects of any intervention or adjustment. Further, it must be done in a way which is *practical* for the teacher. While reliability and validity are always critical factors in any measurement system, at this level of the system we are most concerned with obtaining *reasonably* specific and accurate information quickly, simply and efficiently. Fortunately, the behavioral assessment literature has identified relatively simple procedures which, if followed, permit the teacher to conduct a rather precise analysis of the child's problem behavior

Hawkins, Axelrod, and Hall (1976) describe two general types of measurement techniques which can be employed by teachers: measurement of lasting products and direct behavioral observation.

The measurement of lasting products is particularly appropriate when the child is experiencing academic performance problems, and is a method rather familiar to classroom teachers. On page 6 of your worksheets list all the examples of academic or lasting products you can think of which can be collected during measurement of referral problems.

ACTIVITY

Give the participants approximately 5 minutes to complete the task. Then say:

"Now let's get some examples from the group."

Write responses on a chalkboard, newsprint, or clear transparency. Collect 5 or 6 responses then say:

"Let's compare the group's examples to these and see if we have covered most of the important types of lasting products."

SHOW TRANSPARENCY 15 (T-15)

The following list includes examples of some academic products which may be measured by teachers through this technique:

— Percent of reading comprehension questions answered correctly
— Percent of words misspelled per assignment
— Percent of letters reversed on a writing assignment
— Percent of addition problems incorrect because of failure to "carry"
— Percent of subtraction problems incorrect because of incorrect "borrowing"
— Number of assignments completed per day (or per week)

Note that in just about every case the *percent* correct or incorrect is suggested instead of the number correct or incorrect. This controls for unequal numbers of items in each assignment and can be derived easily by the teacher from some real *product* generated by the student. It should also be evident that many other academic and non-academic behaviors can be dealt with through the measurement of lasting products.

PAUSE FOR QUESTIONS

Are there any questions?

SHOW TRANSPARENCY 16 (T-16)
REFER TO WORKSHEET W-7

Direct behavioral observation, the second recommended technique, is unfortunately misunderstood by many teachers and school psychologists. It is not necessary (especially at the pre-referral stage) for someone to spend hours in the classroom counting some behavior in order to utilize observational procedures; nor is it the case that only simplistic overt motor behaviors (e.g., hand raising, out of seat, amount of time on task) can be measured through direct observational procedures. There are simpler techniques which can be used effectively by teachers and others in the regular classroom. These measurement procedures include continuous recording and time sampling, and utilize such techniques as frequency, interval, and duration recording.

Low frequency behaviors, such as fighting, failure to complete assignments, bizarre verbal behavior, leaving the room without permission, or other behaviors which typically occur less than 20 or so times per day are subject to continuous recording by the teacher. Continuous recording simply involves recording in some manner each instance of the behavior. Common recording techniques include making a mark on the chalkboard for each response, keeping an anecdotal notebook, maintaining a grade or assignment book, or maintaining records of referrals to the office.

It is, in fact, quite difficult for a teacher to continuously record a high frequency behavior. Behaviors which occur quite frequently, such as talking out, off-task, isolate play, echolalia, or other inappropriate verbal or motor behaviors typically are measured using time sampling recording procedures.

The most common of these procedures is frequency recording. Simply, it is a measure of the number of times a particular behavior occurs in a specified unit of time (e.g., day, hour, minute). Rather than attempting to record these behaviors continuously, the teacher may record the number of occurrences of a specified behavior within a certain time period of the day. For instance, the frequency of inappropriate verbalizations (e.g., echolalia) could be obtained by recording the number of such verbal responses in a 10 minute period each morning and afternoon at the same time each day. This greatly reduces the demands placed upon the teacher and makes such measurement possible. In interval recording, the occurrence (not the number of occurrences) of a specified behavior in an interval of time is recorded. A good example of this procedure is the measurement of a social behavior such as parallel or series play. The teacher would establish that every 20 minutes during free play time she would observe the child in 30 second intervals for two minutes and record whether or not during that interval the child was engaged in series or parallel play.

ACTIVITY
OBSERVATION TECHNIQUES—HANDRAISING
NOW YOU SEE IT AND NOW YOU DON'T

Handraising: A Demonstration in Behavior Definition

Purpose: To provide practice in defining behavior according to a specific set of agreed-to criteria.

Time: 20 minutes: Introduction...5 minutes, Activity...10 minutes, Analysis...5 minutes.

Group Size: Limited only by the trainer's ability to manage the group's attention.

Group Structure: Almost any group arrangement is acceptable so long as the trainer is visible to all participants.

Physical Setting: The room in which the workshop is conducted is usually acceptable. It is essential that every participant be able to see the trainer clearly.

Materials: Chalkboard and chalk or butcher paper or newsprint with marking pen.

Overview: The participants are asked the number of handraising behaviors of the trainer in a 45 second observation period. The trainer then asks for frequencies from the group at large. Following the realization that there is variance in scores, the trainer assists the group in developing a more precise definition. The handraising observation session is repeated for 45 seconds. The trainer again elicits frequency counts from the group. The point can be made that no matter how simple the label of a behavior there is still a necessity for a precise definition.

Process:

(1) Announce to the Group: "Now I want you to practice a simple behavior observation. The behavior is handraising."

(2) Appoint someone to be a timekeeper or keep time yourself. Say:

"Count the number of times I raise my hand for the next 45 seconds. Ready? Go."

Look at your watch or cue the timekeeper.

(3) You should begin raising your dominant hand over your head. Do it at least five times. Then raise your opposite hand over your head at least three times. Then raise both hands. Drop them. Then raise your dominant hand only to your shoulder four times. Next raise your opposite hand to your shoulder two times. Finally, raise your dominant hand to about eye level three times.

(4) At the end of the 45 second observation period, ask the timekeeper (or do it yourself) to record the frequency count. First say:

"Someone give me an answer. How many handraisings did you count?"

Record the answer on the chalkboard or paper. Next ask:

"Who got something different?"

Record the answer, and then ask:

"Did anyone get something different from either of these?"

Continue to ask for different responses and record them. If the audience is larger than 12 - 15 participants, conclude the recording by asking:

"Who got less than 5? Who counted between 5-8, 9 or 10, 11 or 12, 12-15, more than 15?"

Count and record all responses. Save the answers for the "Analysis" section of this activity.

(5) Ask the group if the handraising behavior they just observed conformed to the standards of who, what, when, and where. The answer is obviously "no." Next, using the chalkboard or newsprint, write:

HANDRAISING—
WHO?
WHAT?
WHEN?
WHERE?

Now tell the participants you are going to define "handraising" for them according to the 4 "W" questions. Tell them also that when you have done that you will give them another opportunity to observe the same behavior sequence again, this time counting "handraising" behavior according to the behavior definition you have given them.

Write the following on the chalkboard, using the outline that you have just placed there, reviewing the definition of behavior according to the 4 "W" questions as you go.

WHO? Your name, workshop trainer.
WHAT? HANDRAISING = Raising the right hand over the head above the ear-line.
WHEN? During Activity 4 for 45 seconds.
WHERE? Workshop presentation room.

(6) Ask the group to be ready to observe you again as you do the same handraising behaviors. Tell them:

"Count the number of times I raise my hand for the next 45 seconds. Be sure to use the behavior definition of "handraising" we have developed. Ready? Go."

Look at your watch or cue the timekeeper.

(7) Begin raising your dominant hand over your head. Do it at least five times. Then raise your opposite hand over your head. Do that at least three times. Then raise both hands. Drop them. Then raise your dominant hand only to your shoulder. Do that four times. Next raise your opposite hand to shoulder level two times. Finally, raise your dominant hand to about eye level three times.

(8) At the end of the 45 second observation period, again ask the group what their counts were. Record their answers on the chalkboard or paper. Be sure to note "cautions and pitfalls" regarding the results of the second handraising observation period.

Analysis: Have the group discuss the following questions:

Did more of us reach agreement on what to observe during the second handraising observation period?

What were the parts of the behavior definition for "handraising;" did the definition follow the who, what, when and where format?

How much variability was there among the frequency counts from the first to the second observations?

Was it easier to record frequencies with a more specific definition?

Did the reliability (percent of agreement among participants' frequency counts) of the observations improve when a more precise definition of "handraising" was given?

Among the issues and points often raised with respect to observing and measuring behavior, are the difficulties in obtaining a precise operational definition of the behavior and establishing a sufficient level of reliability across observers. Be sure to stress the importance of redefining a behavior to be observed until 80 - 100% agreement can be established among the observers. The title of this activity—"Now You See It and Now You Don't"—emphasizes that the reliability of any observation must first start with as precise a behavioral definition as possible to insure reliable observational results. The four "W" questions, who, what, when, and where, are integral parts and a first step toward insuring valid observations.

Cautions and Pitfalls: Successfully illustrating the need for a precise behavior definition in the "handraising" activity greatly depends on how well the trainer(s) model(s) the sequence and the precise instructions for both observational sessions. Also, if a poor level of agreement results in the second observation session after the four "W" questions for "Handraising" have been addressed, *a third session* may be needed. Perhaps the "Handraising" definition may need to be redefined even more precisely using the four "W" questions, and the participants asked to observe and count "Handraising" according to that redefined definition. The purpose of this activity is to illustrate how important a precise behavior definition is in obtaining reliable and useful observation results.

Duration recording is a technique used to measure the amount of time a child spends in a particular behavior. A typical example from the classroom is the measurement of the amount of time it takes a child to complete an assignment. The teacher simply notes the time that the child started and finished. Duration recording, however, is probably one of the most difficult procedures for a teacher to utilize since it requires that the teacher attend to both the child and a clock or watch fairly consistently. These tasks are sometimes difficult to accomplish in the typical classroom.

In recent years the use of behavior rating scales or behavior checklists has become popular. These instruments are typically easy for teachers to fill out, requiring less time than direct observation. They also permit a teacher to rate the target child and several other children in the class on the same measure as a means of establishing whether or not the target child's behavior is atypical in the classroom. It must be remembered, however, that these instruments are analogue measures of behavior in that they are removed in time and, often, place from the actual behavior of concern. If the behaviors to be sampled or rated on the rating scale or checklist are objectively defined and observable, such instruments may be extremely useful to the classroom teacher in measuring non-academic problem behaviors during this pre-referral stage.

Two classes of behavior generally are exempt from the need for accurate definition and measurement prior to referral. The first includes those behaviors which are so serious that the health and safety of the individual child and/or his or her classmates and teachers are threatened. The second class includes those behaviors associated with low-incidence handicapping conditions: deafness; blindness; autism; orthopedic handicaps; severe/profound retardation; hearing or visual impairment; etc. When conditions such as these are suspected by teachers (or other individuals) an immediate referral for support services is generally warranted.

SHOW TRANSPARENCY 17 (T-17)

Discriminating Unique Problems from Normal Fluctuations in Development

After defining and measuring the behavior of concern, it is next necessary to determine whether or not the behaviors are of such significance as to require intervention or referral. Often this decision is made on the basis of the social values of the referring source. While values are always involved, collecting additional information can assist in making an appropriate decision.

One type of information which is available to teachers and should be obtained during this pre-referral phase is the degree to which the student's behavior differs from the average for the class. Class averages in terms of academic performance are one source of such data. The measurement of the same behavior of one or two other children in the class in addition to the target child permits the teacher to objectively compare the problem student with other students in the class with respect to the behavior of concern and to identify any possible referral bias of his or her own.

SHOW TRANSPARENCY 18 (T-18)
Have participants refer to page 8 of their worksheets.

During the pre-referral phase the teacher who recognizes or perceives that a child has a particular problem—academic, emotional, physical, etc.—is making a judgment about the child's behavior along *some* deviancy/non-deviancy dimension. A first task facing the psychologist is determining the dimension along which the teacher is making a judgment. The problem of making a correct judgment versus an incorrect one may be considered in terms of the matrix presented in this transparency (T-18). The matrix is one traditionally used for determining the validity of screening procedures and instruments but can be used to illustrate the process teachers engage in when they hypothesize that a particular child has a problem severe enough to warrant more in-depth attention.

When a teacher recognizes or perceives that a child has a particular problem, he or she is engaging in the process of initial "identification" of the problem. Following traditional usage, if the teacher is correct in his or her appraisal, this is said to be a *true* test. There are two types of *true* tests:

True Negative—The teacher does not recognize or perceive a problem and in fact no problem exists. (Point to transparency 18 - Cell A)

True Positive—The teacher recognizes or perceives a problem and in fact a problem exists. (Cell D)

There are two types of *false* tests:

False Positive—The teacher recognizes or perceives a problem when in fact no problem exists. (Cell B)

False Negative—The teacher does not recognize or perceive a problem when in fact a problem exists. (Cell C)

All four outcomes are likely or possible in massive screening efforts, when *all* the children in a class, school, county, etc., are assessed. In actual day-to-day practice, the psychologist is only likely to encounter teachers' concerns regarding children they recognize or perceive to be deviant in some way. (These are children who are potentially either *false positive* or *true positive* referrals.)

At the point where a teacher is considering referral of a child for a recognized or perceived problem, the task facing the psychologist is determining whether or not the problem is a true developmental deviation. On the surface this may seem like a very simple task; but, in fact, it is a very complicated part of the overall appraisal process. Let us consider several important points surrounding the determination of whether or not a recognized or perceived problem is in fact a true developmental deviancy.

SHOW TRANSPARENCY 19 (T-19)
and refer participants to pages 8-9 in worksheets

Prospective Validity

The teacher who recognizes or perceives that a child has a particular problem is engaging in a prospective validation process. The teacher is *identifying* a problem and expects that a subsequent in-depth assessment will confirm his or her prediction. That is, in terms of the matrix shown before, the teacher recognizes or perceives a problem and would like to know if the child's *true status* in fact reflects a deviancy in development. It should be recognized that the teacher's prediction of deviancy is, in measurement theory, a *criterion-related* validity issue. As you remember, criterion-referenced validity refers to the extent to which performance on the measurement instrument being validated correlates with performance on some external criterion measure. In terms of the present discussion, this translates into the following: To what extent does the teacher's perception of a problem in fact predict a child's true developmental status?

Whether or not a teacher's recognition or perception of a problem is a *true positive* perception is most easily confirmed or disconfirmed by administering some external criterion measure to determine if a problem in fact exists. For example, if a teacher perceives that a child has a visual recognition problem that he or she considers to be impeding the child's ability to recognize simple printed words, then a visual perception test might be administered to confirm or disconfirm the perceived problem.

The confirmation or disconfirmation of a teacher's recognition or perception of a problem can, in fact, occur on several levels and provide converging evidence regarding the need for further in-depth assessment. Several types of data that may be considered include the following:

The teacher's past "track record." (Point to transparency 19.) If a teacher has consistently referred children in the past who subsequently were found to have the problem identified, there is probably a high correlation between the teacher's perception and the child's true developmental status. It is not, however, these teachers who concern us the most, but the teacher who consistently refers children for perceived problems when no problem exists. This is a false positive referral.

Inter-teacher perceptions. (Point to transparency 19.) To the extent that different teachers (aides, parents, etc.) perceive the *same* problem to exist, we have converging evidence regarding the *true positive* existence of the problem. When only one individual, say, the teacher, perceives that a particular problem exists, then we can begin to formulate hypotheses about the person- (teacher-) specific or setting- (classroom-) specific nature of the problem.

Inter-individual comparisons. (Point to transparency 19.) Information about the extent to which a particular child's behavior differs considerably from that of other students in the class may be extremely useful in confirming a teacher's hypothesis regarding the existence of a problem. As was already discussed, having the teacher collect anecdotal data on both the child who is considered to have a problem and another "average" child in the class may be useful in determining whether or not the "problem" child in fact differs from other children in terms of the behavior of concern.

Intra- and inter-setting comparisons. (Point to transparency 19.) Information about the extent to which the behavior the teacher considers to be deviant is manifested at different times and under different conditions within the same setting (e.g., classroom), and is also manifested in different settings (classroom, hallway, lunchroom, library, etc.), gives converging evidence regarding the *true positive* nature of the problem. As an example, let's use as the problem behavior the "inability" to attend. If it is manifested during reading, story-time, and free-play within a classroom setting and is also observed during gym period, at home, and on field trips, the data support the conclusion that a problem in fact exists.

Cross-culture comparisons. (Point to transparency 19.) If a behavior perceived to be a problem by the teacher in the school culture is also viewed as a problem in the home culture, then a *true positive* condition probably exists. When a behavior is considered a problem in one cultural setting but not the other, we are provided with the information necessary to identify the culture- and setting-specific nature of the problem. For example, whereas "acting out" may be acceptable in some cultures, this type of behavior is and should be unacceptable in a classroom setting, and thus we can define the setting-specific nature of the deviancy.

Medical and developmental histories. (Point to transparency 19.) Whenever medical and developmental histories are accessible, these records can be examined to determine if any past events point to the emergence of the perceived problem behavior. For example, a child considered to have a motor coordination problem may have medical or developmental records which show a history of minor motor-related dysfunctions which now have manifest consequences.

Existing test data. (Point to transparency 19.) If a child has been administered one or more developmental tests for any reason (admission requirements, participation in a research study, program evaluation, etc.), the results—both raw and summation data—could be examined to determine whether or not any apparent deviations are present. Procedures and techniques for discerning the *exact* nature of developmental deviance from test results will be described later.

POINT TO TRANSPARENCY 19 (T-19)

The seven types of data and assessment related information are some examples of data bases and sources of information that can be examined *before* the psychologist himself or herself administers any tests or gathers data using other assessment procedures as part of the pre-referral phase of the overall appraisal process. The information gathered from the seven sources described provides the necessary type of data needed to confirm or disconfirm the teacher's initial recognition or perception of a problem. If all or most of the sources point to confirmation of the existence of a problem, the teacher's perceptions have *criterion-related* validity in a prospective sense. If only one or two sources seem to confirm the teacher's perceptions, we may have a person-related or setting-specific problem. If none of the sources point to the existence of a problem, a decision must be made whether to discontinue further probes to confirm or disconfirm the existence of the problem, or conduct more in-depth assessments in the pre-referral phase.

As part of the initial pre-referral phase of the appraisal process, it is recommended that the psychologist develop a checklist or matrix of those data bases and information sources he or she wants to consider *before* engaging in more in-depth assessments of his or her own. From a developmental assessment perspective, three major dimensions or variables should be considered: inter-person, intra-person, and both intra- and inter-setting effects. These three variables are those considered to contribute to development (Bronfenbrenner, 1979). A framework for conceptualizing these three dimensions in terms of assessment related activities is shown on the transparency.

SHOW TRANSPARENCY 20 (T-20)
Have the participants refer to page 10 of the worksheets.

The term "*intra-child*" is used to refer to the extent to which the "problem" behavior manifested by the child is specific or global in nature, that is, is it manifested under specific conditions or manifested globally? A child who is unable to read material posted on a blackboard but is able to read written material from a book is manifesting a specific type of "problem" behavior. A child who is unable to follow directions verbally, in written form, or through any other means, is manifesting a global type of "problem" behavior.

The term "*inter-person*" is used to refer to the extent to which different individuals (teacher, parent, librarian, aide, etc.) all perceive a behavior to be a problem. The term "inter-person" is also used to refer to the extent to which the "problem" behavior is manifested in response to different persons attempting to work with the same child, or is manifested in response to certain individuals only. Whether or not the problem behavior is person-specific will have different implications for deciding how the problem might be alleviated. For example, if a behavior is a problem for the teacher only, then strategies to alleviate the problem will be restricted primarily to the classroom; whereas if the problem behavior is manifested across different persons, then the intervention will be more global in nature.

The term "*setting effect*" is used to refer to the extent to which the behavior considered a problem is in fact a problem in different settings as opposed to being a problem in only one setting (e.g., the classroom). Again, depending on the setting x behavior finding, quite different interventions are likely to be recommended.

The intra-child x inter-person x setting matrix presented on the transparency is the type of guide that can be very useful for discerning the *exact* nature of a problem behavior even before additional assessments are conducted.

PAUSE FOR QUESTIONS

Are there any questions?

REFERRAL/SCREENING PHASE

SHOW TRANSPARENCY 21 (T-21)
and mention each Step 1 through 5
REFER TO WORKSHEET W-11

It is suggested that training be given to staff members so that they have a thorough understanding of the objectives of the screening process and are aware of what will be expected of them in performing their respective tasks. A general orientation concerning the rationale and steps involved in screening is essential for all participants in the screening process. If new procedures are to be introduced, it is essential that some type of in-service training be given teachers and staff who will be involved.

Once the screening procedure is set up, those involved can decide what type of screening instruments, including observation forms and checklists, can be used. Data can be systematically collected by various individuals which may include the classroom teacher, gym teacher, art and music teachers, counselor, and administrator.

SHOW TRANSPARENCY 22 (T-22)

In order to develop a working definition of at-risk students, the local district may, for example, decide to give further attention and observation to students who: (1) score at the 25th percentile or below on group or individual ability tests; (2) make one or more 0's or F's on report cards; (3) score below the 25th percentile on standardized achievement tests; (4) exhibit erratic, inconsistent, and/or unacceptable behavior for their specific age group; (5) strive to achieve academic success no matter what the cost; (6) seem unable to accept failure of any kind; or (7) are withdrawn and have little interaction with their peer group.

SHOW TRANSPARENCY 23 (T-23)

In addition to identifying "high risk" students, the screening process capitalizes on the skills and knowledge of the classroom teacher to facilitate later stages in the assessment process. Some principles to remember in classroom screening are:

1. A discrepancy can be determined by a teacher through systematic analysis of school work, classroom behavior, and standardized test scores.
2. Given a basic understanding of the referral/screening process, the classroom teacher can provide valid information for the identification of high-risk students.
3. The classroom teacher is the primary resource person for observing and reporting behavioral strengths and weaknesses.
4. Through the consistent observation by the classroom teacher, other personnel involved with the child (counselor, principal, other teachers) can begin to gather further information that will be pertinent in the determination of the student's problems.

5. Effective communication among parents, teachers, counselors, administrators, and others increases the efficiency and accuracy of the screening procedure.
6. Behavior patterns of students may change from teacher to teacher. Cooperation in the screening process can determine patterns and problem areas.

Ask for questions concerning the Referral/Screening overview.

Are there any questions concerning the overview of the referral/screening basic steps and principles?

Generating Classroom Alternatives

The first step in the referral and screening phase is the implementation of an alternative strategy or intervention by the teacher or school system in an effort to solve the referral problem. The teacher may have ideas of alternative strategies for dealing with the problem, and the teacher interview should have provided at least some information that would offer additional suggestions for ways to deal with the child's problems.

The teacher first records one (or in some systems more than one) strategy to be used over a specified period of time to help alleviate the problem behavior. Then the teacher implements the strategy and continues to measure the behavior in question in order to determine the effectiveness of the alternative strategy.

At this point, it is especially important to encourage the teacher to have an optimistic view of the outcome of the strategies, since the expectations of the teacher will significantly influence the effectiveness of the program. The assumption should be made from the beginning that the alternatives tried will work.

ACTIVITY
GENERATING CLASSROOM ALTERNATIVES

Have the participants turn to page 12 of their worksheets. Give them approximately 10 minutes to complete the task. Then say:

"Now let's get some examples from the group."

Write responses on a chalkboard, newsprint or clear transparency. Collect 7 or 8 responses and then say:

"Let's compare your examples to these and see if we have covered the most readily available classroom strategies or interventions prior to referral for assessment."

SHOW TRANSPARENCY 24 (T-24)

There exist numerous options which the classroom teacher or school could exercise at this point including shortening or lengthening specific assignments, more frequent grading, frequent correction of errors or repetition of the assignment, a change of instructional materials, "dropping back" in the curriculum to a point at which the student can achieve, changing the student's seat assignment or the structure of the classroom, employing homework assignments, or implementing a contingent system of rewards (and punishments when necessary) for complete and accurate academic work or appropriate classroom behavior.

Whatever the intervention attempted by the teacher, it is important that she or he continue to measure the behavior of concern using techniques previously described. The success or failure of the intervention will be demonstrated by the data, and should be included in any subsequent referral for assistance. It is at this point that the typical referral is now generated, assuming failure of the regular education intervention efforts. Almost every system has some format for this referral which requires that certain information be provided by the teacher (or other referring source).

Required information usually consists of biographical data (e.g., name, birthdate, sex, race, grade, etc.), the reason for referral, previous attempts to deal with the presenting problem, grades, and any other relevant data. It is recommended that the next step in the process be the submission of the referral to a school building committee for review, screening, and the selection of available options (which could include a referral for a comprehensive assessment).

Evaluating Resources to Assist in Referral Problem Solving

SHOW TRANSPARENCY 25 (T-25)

A national survey of leading assessment professionals by the Texas Regional Resource Center in 1976 identified twelve possible professional multidisciplinary team roles. The team professionals described here are *not inclusive* of all possible members but are presented because of their credentials and/or possible contributions in providing screening and assessment services in U.S. school settings. The professional roles described are *not* to be used to form a standard screening and assessment team, as no standardized team exists. Each team varies according to the referral needs of the individual child (which in rural and remote areas might best be met by a *multi-credentialed* special education teacher, education specialist and/or school psychologist). The team roles we will describe are brief and not intended to cover all the competencies required for the professional role.

1. Referral, Screening and Assessment Team Coordinator

   This is an administrative position which

   (a) requires a person who is capable of coordinating screening and referral data among team members;

   (b) involves matching referral needs with appropriate and qualified professionals whether they are school personnel, other agency professionals, or special consultants whose services are purchased for specific screening and assessment services; and

   (c) can include special education directors, special education teachers, or school principals, to name a few.

2. School Psychologist

   This role may be filled by a master's level or doctoral level certified school psychologist who needs a working knowledge in

   (a) psychological testing which consists of

   —knowledge of basic psychometric theory, including norms, derived scores, reliability, validity and related topics;
   —familiarity with an array of specific psychological tests;
   —highly developed and flexible test administration skills, including techniques for dealing with oppositional, unresponsive, assaultive, self-stimulating and other difficult or unusual behavior patterns; and
   —ability to integrate data gathered from standardized instruments, modifications of standardized procedures, and flexible clinical procedures into a clear formulation of children's psychological development.

   (b) child and family development, behavior management, and educational procedures which include

   —familiarity with patterns and theories of normal child development and performances of unimpaired children during psychological evaluations;
   —familiarity with a variety of behavior management techniques and their effects on various children (behavior modification approaches are particularly useful);
   —basic familiarity with educational procedures for handicapped children and especially the psychological prerequisites for attaining various specific educational objectives; and
   —ability to assess adaptive behavior and document degrees of severity for emotionally handicapped students.

3. Educational Specialist/Diagnostician

   This should be an experienced teacher of handicapped children trained in diagnostic and prescriptive procedures. This individual would be responsible for developing a classroom program for the child, based on an assessment of the child's current levels of functioning. A master's level educational specialist can also be used if funding is available. This person

(a) assesses language/learning skills;
(b) evaluates appropriateness of the student's present school curriculum; and
(c) may collect adaptive behavior information.

4. School Nurse

This person can be a registered R.N. or a licensed vocational nurse trained in educational screening for school related health problems.

5. Speech and Language Therapist

This role requires knowledge in the following subject areas:

(a) language and speech development;
(b) linguistics;
(c) nonverbal communications, such as gestures, imitation, tactile cues, manual communication;
(d) hearing functioning, testing procedures, and adaptive equipment, such as hearing aids;
(e) principles of child development; and
(f) language and speech development in relation to other systems of behavior, such as motor milestones occurring simultaneously with the acquisition of first words and volumtary mutism.

6. School Counselor/Social Worker

This person

(a) can serve as a parent liaison to obtain parent permission;
(b) may collect adaptive behavior information; and
(c) may interview parents for medical/health, educational history, and family related information.

This role may be handled by trained special education teachers or volunteer paraprofessionals in rural and remote areas.

7. Parents

Parents can assist in the appropriate screening and assessment of their children by

(a) informing school personnel about their child's performance in their home and community, including such activities as doing chores, getting along with other members of the family, and getting along with other children;
(b) giving a complete current and past health history noting special health problems or physical handicaps which might now interfere with a child's ability to learn;
(c) assisting in arranging and taking a child for needed medical check-ups, vision and/or hearing tests, dental examinations, etc.; and
(d) expressing continued interest and participation in their child's school program by:
    —attending all scheduled school conferences and team placement meetings,
    —asking questions when unsure about the appropriateness of a child's educational placement or programming,
    —praising and rewarding their child for progress made, and
    —cooperating with school requests for information or assistance.

8. Classroom Teachers

Teacher competencies necessary for screening and assessment *can* include:

(a) a thorough knowledge of the sequential development of child behavior; (because programs must be individualized, and the teacher will have to formulate these programs, knowledge of the orderly progression of motor, language, cognitive-adaptive, social and self-care skills is an important skill needed by the responsible teacher.)

(b) knowledge of setting goals, writing target objectives, planning viable programs, charting behavior, measuring and evaluating output and restructuring the program as needed; (The teacher must know how to systematically state a child's beginning skills, what should be learned, how it should be learned, and whether or not the child has acquired new skills. A basic understanding of the technology of changing behavior is essential.)

(c) basic knowledge of the medical aspects of the conditions associated with multiple handicaps; (This should include knowledge of anatomy and of seizure and syndrome disorders.)

(d) the ability to determine the effects impairments have on the education of a child; (It is one thing to know what 20/200 means; it is another thing to determine that an individual with such acuity can be trained to read print. The teacher is a central figure in determining the learning mode that will be most effective with severely involved children; such decision-making requires knowledge of how the child has learned and is learning and what can be expected under what conditions.)

(e) subject matter competency for dealing with special populations of children; (Because the educational programs of most severely handicapped children focus on skills acquired during the early years, knowledge of motor, language, social, self-care, cognitive, and adaptive development is essential. In addition, knowledge of procedures for teaching academic subjects is also important. Subject matter competency would necessitate knowledge of materials available to teach the skills needed.) and

(f) knowledge of classroom management. (Some models for classroom management and curriculum development have proven more successful than others with certain populations of students. Teachers need to know how different teaching and classroom models are structured and implemented. Additionally, a basic knowledge of learning theories and their applicability to handicapped children is an important competency providing the teacher with a sound basis for important decision making about instruction.)

9. Low Incidence Screening and Assessment Professionals.

Other screening and assessment services which will *probably* need to be purchased as special consultant services and/or provided by other agencies include:

(a) medical and health care assessment services such as physicians, pediatric specialists, and neurological assessments;

(b) bilingual specialists to serve as interpreters (although it would be an asset to hire bilingual diagnosticians, teachers, psychologists, etc.);

(c) occupational/physical therapists who can evaluate a child's physical abilities and disabilities and relate them to his educational needs in the classroom, and if possible to the needs of his family in the community; (This specialist may also need to educate and train educational personnel and family members in proper handling techniques for each specific child so that the child may reach his highest educational potential. He or she will provide plans and, where possible, equipment so the child may better function in his environment through adaptive devices.) and

(d) low incidence specialists who may need to be consulted for rare and unique referral needs. These *might* include:

— audiologists (hearing impaired/deaf specialists),
— otolaryngologists (speech and voice specialists),
— ophthalmologists (visually impaired/blind specialists),
— orientation and mobility specialists for blind/visually impaired, and
— severe and profound/multihandicapped assessment specialists qualified to assess students with severe disabilities and multiple disabilities.

PAUSE FOR QUESTIONS

Screening Referrals for Significant Problems

The screening process is initiated when the teacher submits a referral form, with appropriate sections completed, to the school building level committee. This committee should not be confused with the pupil personnel services team, child study team, student services team, or appraisal team which may exist in some school systems. The major difference between the school building level committee and these other professional groups is that the former is composed primarily of regular education personnel, and it may be just as involved in the selection of regular education options (e.g., remedial/compensatory education) as it is with accessing special education services. It is recommended that this committee be composed of at least two other professional school staff members in addition to the referring teacher. These may include the principal, other teachers, the counselor, or perhaps one appraisal staff member.

The committee, upon receiving a referral from the teacher, reviews all submitted educational information and assigns responsibilities for collecting additional screening data which may be necessary in making decisions about the type of educational services needed for the child.

Ask participants to turn to page 13 of their worksheets. Have them take 10 minutes to list all the possible data needed to screen a student for referral. Then say:

"What are some kinds of data you would collect to screen a student for referral?"

Write responses on a chalkboard or clear transparency. Collect seven or eight responses, then say:

"Let's compare your responses to these and see if we have covered all major data sources for screening."

SHOW TRANSPARENCY 26 (T-26)

Minimal data to collect at this point (before any additional action can be taken relative to the student's program include:

1. Vision and hearing screening results
2. A review of the child's educational history, which includes both grades and the results of standardized academic testing
3. The teacher's observations and comments regarding the child's academic and social performance in the classroom
4. Language and communication skills as rated by the teacher
5. Speech screening (if the nature of the referral suggests that it is necessary)
6. A review of the child's health history, and health and physical screening when necessary
7. A description of and data pertinent to any alternatives attempted by the teacher
8. Work samples from each alternative implemented
9. Socio-cultural background information
10. Other information available or needed

Great care must be taken in this step to assure that screening is comprehensive. Objective criteria should be adopted district-wide, setting the limits for rating children as "at risk." Screening procedures have as much potential for bias as other assessment and decision making procedures. For example, care should be taken to note that behavior which may be abnormal for the majority culture of the school is quite normal or accepted within the minority culture of a referred student.

Guard against collecting data "to support a referral to special education." This is virtually forcing a prediagnosis. This problem can be avoided to a large extent by insuring that the referral problems are objectively defined and that objective measurements of the problem are obtained.

While it is recommended that this committee function as a regular education decision making group, it may be necessary in some systems and at certain times for a member of the support services team (e.g., school psychologist) to participate as a member of this committee. When this occurs, the school psychologist must guard against inclinations to "take over" the group or sway decisions. The school psychologist should function as a consultant, available to advise, when requested, on such matters as assessment procedures, child development, the learning process, measurement techniques, intervention strategies, and special education procedures.

When all screening data have been gathered and reviewed, the committee must consider the question: 'Do the screening data suggest the need for other alternative educational services?"

PAUSE FOR QUESTIONS

Designating Other Educational Alternatives

The building level screening committee should next draw upon available regular education services to determine what other alternatives could be legitimately tried in further attempts to resolve the child's problem. It is suggested that if compensatory or remedial education programs exist in the school system, it should be mandatory that any child experiencing mild learning or behavior problems (such as those who eventually are classified as learning disabled, mildly retarded, or behavior disordered) receive services in these programs prior to being referred for special education evaluation services. The building level committee should be authorized to approve the implementation of the prescribed regular education alternatives and assign personnel to periodically observe and measure the student's behavior while in this program.

Have participants turn to page 14 of their worksheets. Tell them to take 10 minutes and generate as many alternative programs as are feasibly available in their school districts prior to special education assessment. After 5 or 10 minutes, write their responses on a chalkboard or clear transparency. Then say:

"Let's compare your alternatives to some suggested by the developers of this training program."

SHOW TRANSPARENCY 27 (T-27)

The following are some examples of school options prior to special education referral:

1. Bilingual education
2. Title I programs
3. Remedial math classes
4. Compensatory education programs
5. A change of schools
6. A change of teachers
7. Support services such as consultation or intervention assistance from the school psychologist

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PAUSE FOR QUESTIONS

When a change in the student's location in school is being contemplated at this step, the child's parents should be invited to attend the meeting of the building level committee. It will be necessary to obtain parental permission prior to changing the student's placement even though the change may be only for observation (assessment) purposes.

If the parent does not respond to the request for permission when a change of placement is recommended, the school may wait for a prescribed period of time (e.g., 10 school days), then proceed with the proposed change without written consent. This procedure is used in some parts of the country, but is acceptable only if there is a school policy allowing such action, and only if it can be shown that the parents received the notification and/or invitation to be involved (e.g. documentation of a parent conference, letter sent through certified mail). The assumption is that the lack of parental response constitutes tacit consent. This assumption is probably safe if the primary home language of the parents is known to be the same as that of the notification and the parents are sufficiently literate to read and understand that notification.

If the school system does not have such a policy, and it is prohibited by state statute or regulation, the change in placement cannot occur without this written consent from the parent. In this case, the school system can either exercise an option which does not require formal parental consent or consider going ahead with the request for a comprehensive evaluation of the child. The question to be asked at this point is: "Does the problem persist even when alternative regular education alternatives are provided?"

SHOW TRANSPARENCY 28 (T-28)
REFER TO WORKSHEET W-15

Operationalizing a Good Referral for Assessment

At this point, all regular education resources have been exhausted as far as the building level committee is able to determine. These regular education alternatives have either been attempted and found to be successful, or they have proven unsuccessful in resolving the child's problem and the building committee has determined that it now requires additional information or services in order to deal with the problem.

Now, the committee must answer the question: "Do we suspect that this child is handicapped and in need of special education services?" Whether the answer to the question is yes or no, support services (e.g. school psychology, school social work, etc.) should be available to the student, teacher, and committee as resources for providing assistance to school personnel in dealing with the child's problem. If the child is believed to be handicapped, evaluation procedures and safeguards required by P.L. 94-142 and relevant state statutes and regulations become effective. In many systems this means that services must now be provided within specified timelines, certain tests may or may not be administered, and parents must be involved at certain points in the process. If the child is not believed to be handicapped, many systems permit services to be provided by support staff without having to work under the constraints imposed by special education statutes or regulations.

When the committee determines that it must initiate a referral for support services (e.g. school psychological services), whether or not the child is believed to be handicapped, all of the data that have been accumulated to this point should be collected and attached to the district referral form. In some districts these referral forms are then forwarded to a central office for intake and assignment; however, it is strongly recommended that the referrals be given directly to the support services staff serving that individual school. Most school systems require that some method of tracking students in the evaluation process be followed. This tracking requirement should not exist as a step through which the referral must pass before services can be delivered to the child; instead, "tracking" should occur as part of the primary service delivery system. For instance, a system which requires the referral to go from the school to an individual at a central office for tracking, then to a supervisory person for assignment, then to the support services staff member for services, is putting the tracking requirement in the way of the delivery of services. In such cases, it is quite common to see long waiting lists, lost referrals, and confusion in responsibility. Instead, the referral should go directly to the staff member who would provide the services, with a copy of the referral submitted to some central office for record keeping and tracking purposes. Accountability can then exist, services can be delivered, and the tracking requirement does not impede the delivery of services.

Prior to the delivery of any support services such as psychological services or a full individual evaluation, it is necessary to obtain the permission of a parent or guardian for the comprehensive assessment that may follow. Federal regulations require that such consent fulfill certain conditions; it is easy to overlook such requirements as "informed" consent. The parents should understand the reason for the assessment, how it will be conducted, the specific problems that the child is having which require the assessment, and what may or may not happen as a result of the assessment. "Informed consent" does not mean naming each individual test which will be used by the assessment professionals; rather, it means that the types of assessment contemplated (e.g., intellectual, language, speech, educational) should be specified. It is not enough to assume that because parents sign a permission form, they fully understand what they are agreeing to. The parent or guardian should become a full partner in the process of assessment which will follow. The insight to be gained from such an involvement with the parents is invaluable in understanding the child, and greatly facilitates future involvement with the family.

The request for parent permission to conduct the assessment should typically be under the control of the support services staff serving the individual school building. If it is suspected that the child is handicapped and the school building committee obtains parent permission for assessment prior to referring for support services, by the time support services staff receive the referral in many systems, they may already be outside of the state mandated timelines. In addition, it is often the case that when support services personnel receive the referral and have the opportunity to observe the child and discuss the child's problems with the teacher, they are able to determine that a full evaluation is not necessary. Instead some overlooked intervention may be sufficient to take care of the child's problems. If parents were informed that an evaluation was necessary and parent permission for the evaluation was obtained, it may be difficult to explain to them why this evaluation is no longer needed.

For these reasons, we recommend that the support services staff in the school be responsible for obtaining parent permissin upon receipt of the referral from the school building level committee.

This does not mean that the support services staff must actually obtain the permission (although this may be a wise decision in some cases); rather, it means that they are responsible for seeing that the parent permission is requested after it is determined that a full evaluation is in fact necessary. Such a policy permits the support services staff to fully understand the child's problem, to specify the actual type of assessment which will be conducted, and to request additional information from the parents prior to or concurrent with the request for parent permission. In addition, where timelines exist, such a procedure mitigates against the creation of long delays between the date that the parent signs permission for the evaluation and the date that the support services staff are able to actually begin the evaluation.

ASK FOR QUESTIONS

Are there any concerns about the referral or screening process before we start into the pre-assessment phase?

PRE-ASSESSMENT PHASE

Developing Key Assessment Questions

SHOW TRANSPARENCY 29 (T-29)

An assessment question is a question developed through the process of interviewing to be answered during the assessment process via interviews, observations, or informal and formal assessment.

Assessment questions are developed around the student's problem. Generally, a student is either failing, a behavior problem, or both. In generating a referral, the teacher or referring agent generally wants to know two things: (1) why (or what is the cause of the problem) and (2) what can be done to fix it.

The first question from the referring agent—why—brings us back to considering those major variables related to why a student fails. Let's briefly review those:

SHOW TRANSPARENCY 9

(repeat T-9 from overview)

Once again we are faced with the task of narrowing these variables down, focusing on the major causative variable, and developing a remedial plan.

If you were to rank these variables as to which ones had to be ruled out first, which two would you choose if the problem referred was "academic failure?" Take a few minutes to review the transparency, then write down your choices.

Allow 3-5 minutes—observing the group to see when most are finished. Then say:

"Let's get some examples and reasons for your choices."

Call upon 2 or 3 participants—writing their choices on a chalkboard or clear transparency. Then say:

"Here are the 2 choices we made."

SHOW TRANSPARENCY 30 (T-30)

First, vision and hearing acuity. We must have assurances that acuity is intact because most of our subsequent psychological and educational tests depend upon the student's ability to accurately see and hear.

Second, we must have some assurances that the task demands being made of the student in the classroom are at the student's instructional level. If they are above or below the student's instructional level we will have task failure and possibly other forms of undesirable behavior (poor motivation, staring out the window, and other behavior problems).

Data for the second variable, as you have already realized, is harder to obtain; but, if it is the key to the problem behavior, it is best recognized during this phase of the assessment process. Let's consider further this second variable—instructional level of the task.

ACTIVITY

Turn to page W-16 in your materials. Consider that you have been called to a pre-assessment conference where the referring teacher, school counselor, nurse, and principal will be present. The referring teacher would like to discuss Johnny, who is currently failing third grade reading. From among the many variables that could be discussed you wish to discuss the key assessment question—"Are the reading assignments given to Johnny at his instructional level?"

You are to write down (1) what types of data *should* be available at this conference that you would ask to review (typical cumulative folder data, classroom records, actual examples of reading assignments, previous grade reports/anecdotal records, achievement test scores); and (2) what additional data, if any, would you recommend be collected in order to answer your assessment question?

Allow participants approximately 5 to 10 minutes to complete the task. At the close of the time period say:

"Now let's see how everyone did. Someone give me their data under question 1.—what data *should* be available to the group?"

Select someone in the audience to volunteer a response. Write it on the chalkboard or on a clear transparency. Call on 2 or 3 participants, then ask if anyone else has additional data to suggest *SHOULD* be present at this meeting. Then move on to the next category...What additional data would you recommend?

After collecting responses from 2 or 3 more participants and writing them on the chalkboard or clear transparency, say:

"Let's compare what we have generated with some commonly mentioned responses."

SHOW TRANSPARENCIES 31 & 32 (T31 & T32)

Allow time for participants to check their responses against those on the transparency and copy information if necessary.

At this point you may wish to consider whether or not you receive this type or data prior to comprehensive individual assessment and whether or not specific questions are formulated prior to comprehensive assessment.

What are the charactistics of good assessment questions?

SHOW TRANSPARENCY 33 (T-33)

Review each characteristic, then say:

"Turn to page W-18 and complete the task."

Give the participants approximately 5 to 7 minutes to complete the task. At the close of the time period say:

"Now let's see how everyone did. Someone tell me which items were good assessment questions."

Select 1 or 2 volunteers for responses. Write the responses on a chalkboard or clear transparency. Then say:

"Let's compare what we have generated with the key."

SHOW TRANSPARENCY 34 (T-34)

Allow time for participants to check their responses against those on the transparency and copy information if necessary.

As the participants finish, ask for questions. You may find several points of disagreement. First, ask the person if each of the three characteristics applies to the question. Next, make note that some of the questions could be made more specific, which would allow for collection of more precise data. Next, some questions do not seem immediately related to the referring problem of "poor reading" and therefore, were not included. It may be that a question may gain in importance as other, more pertinent, questions are answered and ruled out. Finally, some questions may result in disagreements because of the differing theoretical backgrounds of participants. For example, the question about poor psychomotor functioning and its relation to reading achievement receives both pro and con support in the literature; thus it was ruled out as a good assessment question.

The next step in developing assessment questions would proceed on the basis of data obtained to answer your first question. We are still in the pre-assessment phase and have not recommended a comprehensive individual assessment.

Let's suppose that results of the curriculum based assessment indicated that Johnny's instructional reading level was indeed beginning third grade level. Turn to W-19 and respond to this problem by generating additional assessment questions to narrow down the "why" to the referring teacher's problem—"Johnny is failing reading."

Give participants approximately 5 to 10 minutes to complete the task. At the close of the period say:

"Now let's see how everyone did. Someone give me their new assessment questions."

Select 2 to 3 participants and write their responses on chalkboard or clear transparency. Then say:

"Let's compare what we have generated with the general key."

Have participants refer to worksheet 20.

Allow time for participants to check their responses. Ask for questions.

Now suppose Johnny's instructional reading level came out at the second grade level. Many more pre-assessment questions can be generated including the question of possible eligibility for special education services. Do we go ahead and refer the student for a comprehensive individual assessment on the basis of low performance compared to current grade placement? What about the possibility that if the reading tasks were adjusted to Johnny's instructional level his performance would begin to increase? (This is a rhetorical question, but may be posed to the group for discussion. It is a real systemic problem, and whether the school psychologist can intervene probably depends upon the individual school system or even the individual teacher.)

Generally the pre-assessment phase process may be described as follows: During the pre-assessment conference, the group generates as many assessment questions as possible regarding both the "why" of the problem and the "what to do about it." All known data are reviewed for answers to the assessment questions. If there is not enough information to answer the assessment questions, the remaining questions are put in a priority list and a decision is made about how the data will be collected and by whom.

There are several major aspects of the appraisal process directly affected by the process in this pre-assessment phase.

Have participants refer to Worksheet 21

Now we shall consider in more detail the second effect of the pre-assessment phase—determining the composition of the multidisciplinary team.

Determining the Multidisciplinary Team Needed for Comprehensive Assessment

Here is the basic premise underlying multidisciplinary team composition:

SHOW TRANSPARENCY 35 (T-35)

As was previously described, in the pre-assessment process, the key assessment questions are arranged in order of priority, existing data are reviewed for answers to those questions, and the remaining pertinent questions then determine the types of assessments and who will gather the data.

In order to develop the multidisciplinary team, we need to determine who is available to answer key assessment questions. Turn to page W-22 and respond to the question.

Allow participants approximately 8 to 10 minutes to complete the task. At the close of the time period say:

"Let's have some examples. Someone give me their list of available school personnel."

Select 1 or 2 participants to provide examples. Ask if anyone else has more to add to the list. Write the list on chalkboard or on clear transparency. More on to the next category—Community Resources . . . the State.

Save this information since there is no transparency. The information can be transferred to the "Assessment Resources Checklist" found at the end of this phase. Provide the following explanation:

"The assessment resources we have identified can be transferred to a checklist like the one found on page W-23. Turn to it now and we will briefly discuss it.

"The assessment resources available to you are filled in across the top of the page by level. The person who is chairing the pre-assessment meeting can list the assessment questions to be answered down the left side of the page. A determination is made regarding who can answer the assessment questions most *competently* and *efficiently* by placing an X under the appraisal resource. If there are more than one resource that can answer the question, an administrative decision is made as to which one shall do it and thus duplication of services and redundant information gathering is avoided."

The multidisciplinary team composition is now determined. Furthermore, questions needing answers are given to each team member; this should guide assessment technique selection more precisely.

There are two major sources for generating assessment questions. We have just covered the first source, that of reviewing all known data regarding the referring problem, then prioritizing assessment questions on the basis of missing information about key variables. The second source of questions are the eligibility criteria for various handicapping conditions. The eligibility criteria identify measurable elements that necessitate data collection. Therefore, if a student seems to display characteristics of a handicapping condition, the eligibility criteria pose a second set of questions requiring data collection to verify presence or absence of those characteristics. More specific information about this second source of assessment questions will be covered in the next appraisal process phase—comprehensive individual assessment.

Factors Influencing Decision Making on Test Results

Since the mid 70's there has been a growing amount of literature on factors that influence decision making throughout the entire appraisal process. One of the major reasons for increasing research into decision making is that outcomes of the appraisal process (primarily the decision of eligibility for special education services) have come under closer scrutiny by two major factions outside the educational system: state and federal legislatures and the judicial system.

Legislators became alarmed at the rapidly rising enrollment figures in special education, particularly in the learning disability category. Federal legislators sought to curb escalating costs by putting a percentage ceiling on total number of students that could be enrolled in special education and receive federal funds. The enrollment ceiling was not popular for a variety of reasons; nevertheless, rising costs for special education had become a major stimulus for asking educators, "Why are you experiencing such a dramatic increase in special education enrollment?" In turn, educators had to look at their appraisal process for answers, and the eligibility criteria for various handicapping conditions became immediately suspect due to ambiguous terms. Some states had to take federal definitions a step further and provide more exact criteria (e.g., "a significant discrepency" is one standard deviation below the student's measured intellectual functioning).

Some attempts were made at redefining specific eligibility criteria, but for learning disabilities lack of agreement among professionals resulted in only minor changes. Specific measurement of these criteria is left unspecified and up to the judgment of assessment professionals. There is an implicit assumption that we have specific tests that measure these criteria and, *more important*, that the measured presence or absence of these criteria directly influences the decision about eligibility for special education services. There is mounting evidence that this assumption is not valid.

The judicial system became most involved in the appraisal process through the issue of nondiscriminatory assessment. Various court cases have dealt with bias in the placement of minority group students in institutional tracking systems and special education. The Office of Civil Rights measures bias in a school system's appraisal process by comparing the proportional numbers of minority group students in special education to the proportions in regular education. The courts have identified the intelligence test as the major source of bias resulting in over-representation of minorities in special education. A discussion of whether or not this is true does not occur here; issues of nondiscriminatory assessment are dealt with in the *Nonbiased Assessment* module. The focus in this module is on the evidence indicating that a second source of bias, occurring during decision making throughout the appraisal process, may be an equal or greater source of potential bias. It is to this point that this section of the pre-assessment phase and part of the educational planning phase are directed. Here, we will focus on factors influencing decision making throughout the appraisal process except during the educational planning phase. That phase will be specifically discussed in a later section.

Turn to page W-24 and respond to the described task.

Allow participants approximately 5 minutes to complete the task. At the close of the period, say:

"Let's look at some decision making factors. Someone give me their list."

Select 1 or 2 participants asking the second to add to the first list. Now ask the entire group if anyone else can add any new factors to the list. Write these down on the chalkboard or clear transparency. Then say:

"Here are some factors we put together that might influence decision making."

SHOW TRANSPARENCY 36 (T-36)

Discuss these and other group generated factors. The major point is that many other factors influence decisions—*other than actual test data*—and we should recognize them in order to manage them.

One would like to think that during appraisal we retain complete objectivity. However, there are student characteristics that we actually may be more comfortable with than others.

Turn to pages W-25 and W-26 and complete the rating form.

Allow participants approximately 5 to 8 minutes to complete the task. The major point to mention as everyone seems to be finishing is:

"The point here is that you may have found some of these characteristics more comfortable than others. Simply make note of it and the possibility that your decisions and interpretations of appraisal data from such students may also be influenced by those same characteristics.

Research Findings

Returning to the point made earlier that decisions regarding eligibility for special education services may be made independently from test data supporting criteria for eligibility, Ysseldyke and Thurlow (1980) made the following comment in summarizing studies about the variety of tests and procedures used in assessment: "While some tests are used with greater frequency than others, there does not exist a set of devices or procedures that are used consistently across settings. Further, the tests used are not varied as a function of the decision to be made (pp.1-2)."

Furthermore, a "standard battery" of tests appears to be given regardless of the problem, with an emphasis on confirming the presence or absence of eligibility criteria only.

SHOW TRANSPARENCY 37 (T-37)

In an attempt to investigate what types of data placement committees actually used in making eligibility decisions, Morrow, Powell, and Ely (1976) varied types of information (psychologist's report versus psychologist's report plus social history report) given to placement committees for eligibility determination. Ten placement committees were given information on 12 referred pupils, half of which had only the psychologist's report on test results, while the other half had both psychologist's report and social history report. In addition, the type of student was varied by using six pupils who had received a recommendation for special education as learning disabled while the other six had been recommended for a return to regular education by outside psychologists. The ten placement committees did not have these placement recommendations in the reports that were reviewed. Analysis of the committees' decisions showed no significant relation to either the psychologists' placement recommendations or the presence of social history information. In other words, the committees' placement decisions varied randomly with the types of data present.

SHOW TRANSPARENCY 38A (T-38A)

A study by Richey and Graden, (1980) investigated placement team decision making for learning disabled students and to what extent those decisions were data-based. From an overall data base of 38 placement team meetings which were videotaped in 16 school districts, 20 videotapes were selected for analysis using an observation system. Two types of statements were recorded: (1) statements related to expected level of performance (e.g., current grade placement, expected grade level, age), and (2) statements concerning actual level of performance (e.g., obtained scores, observational measures, statements of attitudes). In addition, each statement was coded in one of three ways: supportive, refuting, or irrelevant to determining eligibility for L.D. services.

Three eligibility criteria for learning disabilities were selected as decision criteria: (1) discrepancy between actual achievement and ability, (2) a significant verbal/performance discrepancy on the WISC-R, and (3) the current federal definition criteria.

The placement team's decision of eligibility for L.D. services was also used as a decision criterion.

SHOW TRANSPARENCY 38B (T-38B)

Results showed:

1. There was a moderate correlation between amount of data presented and final decision ($R = .52$)—the more test information present, the more likely the decision in favor of L.D. classification.
2. 83% of statements made during the meetings were considered irrelevant to the decision.
3. No relationship was found between presentation of statements relevant to ability/achievement, verbal/performance discrepancies, or federal definition criteria, and placement team decision.

Point: "The data did not support the belief that teams use specific (or formal) criteria in making eligibility decisions, nor that assessment data are used to support or refute eligibility" (p. 53).

SHOW TRANSPARENCY 39A (T-39A)

In the following study Ysseldyke and Algozzine (1980) investigated the effects of biasing information in a case folder on diagnostic decision making. School professionals (N = 159) from many disciplines participated in this computer simulated study. Based upon their favorable eligibility decisions about the referred child, 83 participants (12 school psychologists, 25 special education teachers, 5 school administrators, 31 regular class teachers, and 10 other school personnel) were selected for further study to determine their decision criteria.

Participants were asked to make decisions about a student based on initial case folder information. Additional diagnostic information was available upon request but contained scores indicating average performance in all areas. This allowed the initial referral information to be varied on the basis of sex, socioeconomic status, physical attractiveness and nature of the referring problem. Participants were asked to make decisions about the student's eligibility and diagnostic classification.

SHOW TRANSPARENCY 39B (T-39B)

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1. Tests were selected in a similar manner regardless of information presented at time of referral.
2. Regardless of the test selection similarity, *different* decisions were made about the student (all test performance data was depicted as average). Approximately 52 percent of the participants found the child eligible for special education services.
3. Diagnostic classification decisions were a function of student characteristics described in the referral information:
   a. Emotionally disturbed classifications were more likely when the referral statement indicated behavior problems (no evidence for such confirmation was included in the behavioral assessment data requested by participants).
   b. No classifications of mental retardation were made.
   c. Learning disabled classifications were related to a variety of specific factors. For example: unattractive, low SES girls referred for academic problems were much more likely to be diagnosed L.D. than unattractive, low SES girls referred for behavior problems.

SHOW TRANSPARENCY 39C (T-39C)

Summary Point

It's possible "... that examiners may hold, and seek to confirm (with or without appropriate evidence), preconceived notions about the assessment outcomes based upon the child's 'characteristics'."

As evidenced in the above studies, we are subjected to a variety of factors— other than actual test data—that may influence our decision making and, in some cases, interpretations of test data. Decision makers should be constantly on guard for such factors. COMPREHENSIVE INDIVIDUAL ASSESSMENT PHASE

Building a Comprehensive Picture

SHOW TRANSPARENCY 40 (T-40)

At this phase of the assessment process, a comprehensive individual evaluation is completed for two major purposes: (1) eligibility determination—to establish the presence or absence of a handicapping condition, and (2) educational programming—to identify baseline levels of specific skills in instructional areas.

Prior to the passage of P.L. 94-142, and earlier, school psychologists were being asked to answer only questions related to purpose one—eligibility determination. Now an additional set of questions is being asked—where to start classroom instruction.

Apparently, a major problem exists when one set of tests, primarily developed and used for the first purpose, is used for both purposes. The result is an adequate answer to questions about eligibility but an inadequate result for questions about specific skills in an instructional area.

Turn to page W-27 and complete the exercise.

Allow participants approximately 5 minutes to complete the task. At the close of the time period say:

"Let's develop the list of tests. Someone give me their list."

Write the test list on chalkboard or clear transparency. Ask the group if anyone can add a new test to the list. Then say:

"This list of tests might be considered our 'standard battery' given to a student with this type of referral problem. I have a question for you regarding the outcome of such a battery. Will we have the type of information needed to tell the teacher where to begin reading instruction?"

(Pause—you may or may not choose to discuss this point. The major point is made with the next 2 questions.)

QUESTION: Which of the two purposes of assessment—eligibility or programming—does the battery of tests serve?

Answer: eligibility determination.

QUESTION: Using this battery can we meet the informational needs to serve the second purpose?

Answer: no.

QUESTION: What types of tests would we have to administer in order to answer the teacher's questions about reading instruction?

Answer: specific reading tests or access directly from his or her reading program.

What do appraisal teams continue to give the same general types of tests to certain referral problems?

Pause and ask for some response.

SHOW TRANSPARENCY 41 (T-41)

Here are two possible factors that shape the "typical test battery." (Cite these two, then go on.)

This brings us back to the point of how critical the pre-assessment phase is to developing a comprehensive picture of the child. Here are the major ingredients that help build such a picture:

SHOW TRANSPARENCIES 42 & 43 (T-42 & T-43)
REFER TO WORKSHEET W-28

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1. Develop two sets of questions around the referral problem:
   a. Why does Johnny behave this way?
   b. What can be done about it?
2. The first set of questions (why) expands into two major areas:
   a. Why does a student fail or misbehave? Is it due to student characteristics, school system characteristics, or both?
   b. If the answer to "why" centers on the possibility that the student may have a handicap, a set of questions asking whether or not he displays characteristics or meets the eligibility criteria for the particular handicap emerges.
3. We have already discussed developing assessment questions, then analyzing all known data for answers to as many questions as possible.
4. If one of the unanswered questions concerns presence of a handicap, we must look at the eligibility criteria for that handicap as the second source of assessment questions regarding "why" the student is behaving that way. We will expand and clarify this point in a moment.
5. Finally, the assessment questions left unanswered are assigned to members of the multidisciplinary team and they gather the necessary information for those answers.

The major outcome of this process is that, under the above conditions, the assessment will be different for each student. The questions generated will focus on both the student and the classroom environment as interactive factors resulting in the defined referral problem.

Let's return to Step 4 and provide some clarification. If a handicap is suspected, we look to the specific eligibility criteria as a second source of assessment questions. The following example is taken from the interviewing section of the module on Non-Test-Based Assessment and is cited here as a procedural illustration. Specific training on developing eligibility questions may be found in that section.

Addressing measurable aspects of eligibility for special programs

Let's examine the federal definition of mental retardation and determine how many measurable elements exist in the definition.

SHOW TRANSPARENCY 44 (T-44)

Turn to page W-29, read the definition and write down the measurable elements.

ACTIVITY

Allow the participants approximately 3 to 5 minutes to complete the task. At the close of the time period say:

"Here are the three elements to be measured."

SHOW TRANSPARENCY 45 (T-45)

"From these elements we can develop assessment questions whose answers determine presence or absence of eligibility criteria characteristics."

SHOW TRANSPARENCY 46 (T-46)

Looking at each of these eligibility questions, how would you measure or collect data to answer each one? Write your answers to that on page W-29.

Allow participants approximately 3 to 5 minutes to complete the task. At the close of the time period, say:

"Now, how would you measure Question 1? Question 2? Question 3?

This gives you an idea of how a definition is broken down into measurable elements and then questions developed to assess the presence or absence of each element.

SHOW TRANSPARENCY 47 (T-47)

ALSO REFER TO W-30

Let's review briefly the origins of assessment questions that are brought into the comprehensive individual assessment phase. This chart visually depicts the five steps to a comprehensive picture.

SHOW TRANSPARENCY 48 (T-48)

In pre-assessment the referral problem initially generates two questions at (A) which is the first step in a comprehensive picture. Notice that Question 2—What to do—is not attended to until we narrow down the why question.

From (A) we move into the two areas (1) student characteristics and (2) school characteristics. Answers for these questions are pursued at the same time. Our chart illustrates our pursuit of one student characteristic—the possibility that the student has a handicap (C). If we have data to answer the question "*No*, he does not have a handicap," we do not proceed any further. Our question has been answered, so we look at the other characteristics which may be contributing to the student's failure.

If we suspect a handicap, we move to the two purposes of assessment for the second and third sources of assessment questions—eligibility criteria and programming

All unanswered questions from (B) constitute the first source (D) of unanswered questions. The second and third sources are (E).

Upon answering questions at Step 5 we should have a comprehensive picture of the student based on the nature of the referral problem.

Specifying educational need in terms of "adverse effects"

Now we must look at "adverse effects" upon education. Let's return to the three general assessment questions that focus upon delivery of special education services.

SHOW TRANSPARENCY 49 (T-49)

1. Is there a handicapping condition present?
   If no, the student is not considered eligible to receive special education services. If yes, the team proceeds to determine if the handicap has "adversely affected" educational performance.
2. Does the handicap "adversely affect" educational performance?
   This question seeks to determine the student's need for special education services. There are students who have a handicap, but do not need special education services.
3. What are the student's specific instructional needs?
   The first two assessment questions are related to the first purpose of assessment—eligibility. The third question is related to the second purpose of assessment—educational programming. It is the major question asking for information about the student's educational competencies

SHOW TRANSPARENCY 50 (T-50)

Let's consider further the second assessment consideration—"adverse effects" on educational performance. This particular question is intended to collect data about the student's educational performance as it relates to his or her peers.

Two aspects to consider when measuring "adverse effects":

1. Norm referenced tests are used to compare the student's performance to the norm group.
2. Consideration should be given to the several levels of comparison listed on the transparency.

For example, it may be normal in one district for a sixth grader to be achieving on the fourth grade level in math. Therefore, a student achieving at fourth grade, while significantly behind when compared to national norms, is doing average work expected in that district. Under such circumstances, the discrepancy between mental ability/academic achievement does not represent an "adverse effect."

Insuring specification of precise educational competencies

The third general assessment question, "What are the student's specific instructional needs?" is the major programming question that is asked *after* the *why* is determined for the student's referring problem.

SHOW TRANSPARENCY 51 (T-51)

There are two major points to consider when collecting data to answer programming questions:

1. Tests used for the first purpose of assessment, eligibility, rarely can be used for the second purpose, programming.
2. Criterion referenced, rather than norm referenced achievement tests should be used. The curriculum-based assessment section in the Non-Test-Based Assessment Module clearly indicates that the use of curriculum materials to assess specific instructional levels provides more useful information for instruction than norm referenced educational tests (which may actually contain less than 25% actual items in use by the classroom teacher).

Specific training in curriculum-based assessment is available in the Non-Test-Based Assessment Module.

SHOW TRANSPARENCY 52 (T-52)

When the multidisciplinary team completes data collection a review is made of all current data collected to see if all assessment questions have been satisfactorily answered. If not, all unanswered questions must be addressed. If so, the team is ready to complete their report—the next appraisal process phase.

Before we move to the assessment report phase, three other types of information will be provided in this section: information on developmental assessment, assessment of severely/multiply handicapped children, and infant and preschool assessment. Basic considerations and resources are presented as initial starting points for school psychologists who have not had routine training in these areas but may be requested to function in them.

ASK FOR QUESTIONS

Are there any questions before we start into some basic concepts in developmental assessment?

SHOW TRANSPARENCY 53 (T-53)
REFER TO WORKSHEET W-31

Basic Concepts in Developmental Assessment

When the psychologist is in agreement with the teacher that something is wrong, he or she can begin to gather data to determine the *uniqueness* of the developmental deviations. For our purposes here, we shall distinguish between four types of deviations or variability: (A) normal, (B) general developmental delay, (C) domain specific, and (D) within domain deviations. *Normal variability* or fluctuation in development is characterized by intra-individual differences in performances both within and across domains of development, in which any advances or lags are not of *significant* concern. (What constitutes *significant* will be discussed shortly.) A *general developmental delay* is characterized by *significant* lags in development in most if not all areas (e.g., language, cognition, emotional, adaptive). A *domain specific problem* is characterized by a significant delay or deviation in only one major area of development (e.g., gross motor). A *within domain deviation* is characterized by a specific problem in one aspect of some more general developmental domain. A problem of auditory decoding within the domain of language development is one example of a within domain developmental deviation.

SHOW TRANSPARENCY 54 (T-54)

The determination of the uniqueness of developmental deviations, and whether or not these deviations are normal or atypical, can only be determined through the use of developmental assessment procedures. This can include the administration of (1) *psychometric tests*, (2) *criterion referenced tests*, (3) *Piagetian based scales*, (4) *rating scales*, (5) *observational procedures*, etc. The choice of the assessment instrument to be used will be determined according to the type of problem that is of concern.

At this point, we will examine in more detail how assessment data can be interpreted for determining the specific nature of developmental deviations.

SHOW TRANSPARENCY 55 (T-55)

Norm Referenced and Psychometric Tests

Anastasi's (1976) text on psychological testing is no doubt one of the best references on norm referenced assessment. As you probably know, Anastasi, in discussing norm referenced tests, made explicit that decisions regarding interpretation of scores obtained on these tests are based on the normal distribution curve presented on this transparency. (Point to Transparency 55 and refer to Worksheet 32.) The property of this curve most important for interpretation purposes is the standard deviation (SD). As you know, certain percentages of scores are expected to fall within one, two, three, etc., deviations above and below the mean score on the test instrument. So, for example, on the Stanford-Binet, 68% of all scores for the standardization group fall between scores of 84 and 116 since the SD on this test is equal to 16.

The standard deviation is used most frequently for determining whether or not a *general* developmental delay is present. As you already know, IQ scores two or more SDs below the mean are taken as an indication of mental retardation using the AAMD classification system. Consequently, knowledge of the standard deviation on *any* test permits the psychologist to determine whether or not a *general* developmental deviation is being manifested by the individual who is tested. Again, on the Stanford-Binet, a person obtaining a score of 68 or less (two SDs below the mean) would be considered to be functioning at a mentally retarded level of development.

The SD is also helpful in discerning whether or not there are *specific* deviations in development whenever an assessment tool measures performance in a number of separate domains (such as the WPPSI, WIC-R, and McCarthy Scales of Children's Abilities). In his book *Assessment of Children's Intelligence*, Sattler (1981) described numerous methods for discerning strengths and weaknesses and the uniqueness of developmental deviations based on the SDs of individual scale scores—several of which will be briefly illustrated here. It is highly recommended, however, that you familiarize yourself with all the techniques described by Sattler.

For illustrative purposes, let us examine how we can determine whether or not individual scores obtained on the WISC-R subtests are significantly below average to warrant concern about a specific deviation in development. The scores obtained by a hypothetical examinee are shown on this transparency and page 32A of your worksheets.

SHOW TRANSPARENCY 56 (T-56)

As can be seen, our examinee's scaled scores range from 4 to 15, and the deviation scores from the mean of 10 vary from –6 to + 5. Let us assume that we want to determine whether any of the deviation scores are significant at a 95% level of confidence. Also, for illustrative purposes, let us assume that the SD for all WISC-R subtests is 2.0 points.

At a 95% confidence level, we simply multiply the SD by 1.96 (the standard score value which places 95% of all scores between ± 1.96 SD points to determine if the deviation scores are significantly different from what one would expect by chance. An SD of 2.0 (for the scaled score) multiplied by 1.96 equals 3.92. Thus, from examination of the transparency we can see that the comprehension, similarities, and coding scores are significantly *below* average, while the block design score is significantly *above* average.

SHOW TRANSPARENCY 57 (T-57)

In summary, to determine whether or not any subtest score is significantly different from the mean score on the subtest, we simply need to know the SD for the subscale. At a 95% confidence level we multiply the SD for the scaled score by ± 1.96, and at a 99% confidence level we multiply the SD for the scaled score by ± 2.58. This procedure can be used with any norm referenced and standardized test as long as we know the SD for the scale or subtest of concern. SDs are generally presented in the test manual of an assessment tool.

To determine the strengths and weaknesses an individual manifests on several subtests, Davis (1959) and Sattler (1974) proposed a procedure for comparing the average of several subtests with an individual subscale score. Again, for illustrative purposes, we will use the scores of an examinee on the WISC-R. Sattler (1974) has derived a table for making this type of comparison.

SHOW TRANSPARENCY 58 (T-58)
AND REFER TO WORKSHEET W-33

To be significantly different from the *average* score obtained by an examinee, the separate domain scores must reach or exceed the levels shown here (Point to T-58). Using the same scores obtained by our hypothetical examinee (see Transparency 56), we obtain the results shown here.

SHOW TRANSPARENCY 59 (T-59)
AND REFER TO WORKSHEET W-34

As can be seen, the similarities and coding scores are significantly *below* the examinee's average score, and the block design score is significantly *above*.

SHOW TRANSPARENCY 60 (T-60)

Both norm referenced and criterion referenced assessment can be useful in determining whether an individual is showing unique developmental deviations. Method A, norm referenced assessment, helps determine if an individual's scores differ significantly from the norm reference group. Method B, criterion referenced assessment, can tell us whether or not the patterns of development are typical or atypical for the particular child.

Criterion Referenced Tests

Unlike norm referenced tests, which are interpreted by comparing an examinee's scores with those of others, criterion referenced tests focus mainly on what a person can do and what he or she knows.

SHOW TRANSPARENCY 61 (T-61)

The procedure generally used for interpreting the scores on criterion referenced tests is to determine what percentage of items, skills, etc., a person has mastered at a certain level of competency (e.g., first grade). Expectancy tables are typically used to facilitate the interpretive process when criterion referenced tests are used to assess performance. Expectancy tables tell us "how much" of the skill the person has mastered relative to a predetermined standard. For example, we might have a reading series that is ordered along the criterion states of grade levels (1.0, 1.5, 2.0, 2.5, etc.). Using these levels as our criterion, a test may be developed that taps mastery of the reading competencies included in the reading series. The scores obtained on this test may then be compared against the criterion to determine what percentage of the skills a particular child has mastered. A hypothetical example of such an expectancy table for level of reading competency is shown here.

SHOW TRANSPARENCY 62 (T-62)
REFER TO WORKSHEET W-35

If, for example, a child who is halfway through the first grade (1.5) received a score of 50 (equal to the mean) on our criterion test, we would know that he or she has mastered 80% of the reading materials at his or her grade level. This same person has mastered 90% of grade 1.0 material and 70% of grade 2.0 material.

Although it is easy to construct expectancy tables, one proplem with criterion referenced tests is that a cut-off point for determining an acceptable level of mastery must be established. The use of these tests for assessment purpose requires the establishment, on an *a posteriori* basis, of a criterion level of performance that will discriminate between persons who have met minimal standards of competence and those who have not. In school districts where competency testing is becoming an accepted practice for measuring mastery of skills, criterion levels of performance are generally preestablished. It is important that these levels be established before criterion referenced tests are used for determining whether or not a child is manifesting deviations in development.

Properly constructed criterion referenced tests should have accompanying expectancy tables or provide enough information to construct expectancy tables. For example, the Wide Range Achievement Test (WRAT) norm scores for grade levels could be converted to a form that yields expectancy tables for criterion referenced assessment. What are needed when expectancy tables are constructed for criterion level testing are expectancy tables for *each* and *every* level (e.g., ages or grades) at which we want to test for mastery performance.

Piagetian Based Scales

Piagetian based scales are ordinal scales which measure the progressive reorganizations that occur in the overall genesis of particular cognitive concepts (e.g., object permanence, seriation, conservation). Piagetian scales determine at what point along a developmental continuum a child is functioning in cognitive understanding. For example, Goldschmid and Bentler's (1968) *Conservation Concept Assessment Kit* assesses the development of conservation of space, number, weight, etc. as an indicator of the child's transition from the preoperational to the concrete stage of cognitive abilities (approximately 4 to 8 years).

SHOW TRANSPARENCY 63 (T-63)

The difference between criterion referenced and Piagetian scales is that Piagetian scales measure the different *levels* of understanding of a particular concept, whereas criterion referenced tests measure the *amount* of material mastered.

There are a number of Piagetian based scales now available for assessing cognitive performance between the period from birth to the middle school years (see Goodwin & Driscoll, 1980, for a review of these scales). At present, there are no Piagetian based scales, with the exception of the *Conservation Concept Assessment Kit*, that have validated developmental norms. Therefore, using Piagetian scales for developmental assessment purposes can determine only the level of cognitive development a child has attained according to *Piagetian* sequences of development and not to others. Knowledge of where a child is developmentally in terms of level of cognitive performance, however, can be very important information in planning educational instruction. For example, if a child is functioning at a sensori-motor level of development, his or her ability to function well within a traditional cognitively-oriented preschool program is not very probable. Likewise, if a school age child is still functioning at a pre-operational level, his or her ability to benefit greatly from traditional school instruction would not be expected.

Perhaps the best use of Piagetian scales is determining whether or not a child's level of cognitive performance "matches" the level of educational instruction he or she is exposed to. This can be done by constructing a profile of abilities based on a child's performance on a series of Piagetian tests. For example, Dunst (1980) presents a strategy for determining the uniqueness of a child's patterns of responses on the seven Uzgiris and Hunt (1975) scales of infant psychological development. A profile of a normally developing infant is shown here. Note the variability in performance.

SHOW TRANSPARENCY 64 (T-64)
REFER TO WORKSHEET W-36

Note the variability in performance across the seven sensori-motor domains. This is very characteristic of normal sensori-motor performance. A profile of a child who is manifesting specific delays with regards to imitative capabilities is shown here.

SHOW TRANSPARENCY 65 (T-65)
REFER TO WORKSHEET W-37

A child showing this particular pattern of response would not likely benefit from instruction which involved child imitation of teacher modeled behaviors. This would represent a "mismatch" between the child's developmental status and the instructional method used for teaching the child desired behavior skills.

SHOW TRANSPARENCY 66 (T-66)
REFER TO WORKSHEET W-38

Rating Scales

Standardized and norm referenced rating scales can be interpreted in the same manner as psychometric intelligence tests. SDs for both overall scores and individual subscale scores can be used to discern the uniqueness of performances. SDs can be used to determine overall developmental delays, delays on specific subscales (if any), and the strengths and weaknesses of the child relative to others and to himself or herself. Sattler (in press) should be consulted for the techniques and computational procedures for assessing the uniqueness of developmental performances.

Observational Procedures

In many instances, the behavior of concern to a teacher is not something that is typically measured by an assessment instrument. "Talking out" in class, distractibility, lack of attention, and aggressiveness are examples of this type of behavior. In these instances observational procedures are perhaps most appropriate for discerning the uniqueness of the problem behavior.

SHOW TRANSPARENCY 67 (T-67)

The four observational techniques typically employed for assessment related purposes are: frequency counts and charts, checklists, anecdotal records and diary descriptions. Frequency counts, as the term implies, simply involve counting the occurrences of a specific behavior as it is manifested. Charting the occurrences of the behavior provides a graphic picture of the behavior as it occurs across time, settings, persons, etc. Checklists are often used to determine whether or not a group of behaviors (e.g., aggressive behaviors) are manifested across time, settings, persons, etc. Anecdotal records are typically in the form of a "running account" of the child's behavior—including both behaviors of interest (i.e., the "problem" behavior) and other behaviors as well. (Diary descriptions have very little utility as part of an assessment and will not be discussed.)

The primary problem facing the psychologist who opts to use observational procedures for discerning the uniqueness of a behavior or set of behaviors is establishing a criterion level which discriminates between acceptable and unacceptable levels of performance. What the criterion is will, of course, depend on the behavior of concern. It is, however, important to set the criterion and get general consensus among relevant persons (e.g., teacher, psychologist, and parent) before the behavior is considered deviant.

SHOW TRANSPARENCY 68 (T-68)

Perhaps the most widely accepted and most useful observational technique that can be employed by a psychologist for discerning the nature of problem behaviors is the *functional analysis of behavior*. "The foremost goal of a functional analysis is the modification of deficient or unacceptable behavior." In a functional analysis approach to assessment, one not only assesses the "degree" of occurrence of a behavior, but also attempts to modify and change behavior by manipulating the consequent events that appear to be responsible for the occurrence of the behavior.

Two types of approaches to the functional analysis of behavior appear most useful in applied settings like schools. The first is the A-B-A approach where the first (A) phase of the analysis involves systematic recording of the baseline frequency of the behavior, followed by an attempt to change the behavior (Phase B), and a return to baseline (Phase A). If the Phase B manipulation is effective in changing the behavior in the desired direction, then one ought to obtain results like those presented here.

SHOW TRANSPARENCY 69 (T-69)
REFER TO WORKSHEET W-39

For example, if the behavior of concern is "on-task" performance, and the manipulation used to increase the behavior is teacher attention for completed tasks, the form of change shown in the transparency would indicate that adult attention served as a "reinforcer" for on-task performance. If the goal were to decrease the occurrence of an undesirable behavior (e.g., talking in class), then one would expect to find results similar to those on the next transparency.

SHOW TRANSPARENCY 70 (T-70)
REFER TO WORKSHEET W-40

Generally, following the return to baseline in the second (A) phase of the analysis, the manipulation found to be effective would become the strategy recommended by the psychologist to change the "problem" behavior in the desired direction.

A second technique that can be used for discerning the patterns of "problem" behaviors using a functional analysis approach is a multiple A-B-A procedure. For example, the same observations could be made on two children—the target child and an "average" child in the class—to determine whether in fact the target child's behavior differs from *typical* performance. If it does, Phase B would be implemented, and we would expect to find results like those shown here.

SHOW TRANSPARENCY 71 (T-71)

As can be seen, for the behavior of interest (out of seat behavior), during the baseline period our target child manifested three times as many out of seat behaviors as did our contrast child. More important, our Phase B manipulation (teacher attention for in-seat work) was found to decrease the frequency of the problem behavior to the same level as our "average" child. The increase in the problem behavior following removal of the reinforcing event demonstrated the efficacy of our manipulation.

PAUSE FOR QUESTIONS

Contrasting Perspectives of Development

Developmental assessment does not and should not occur in a void. Assessment procedures have philosophical and psychological bases whether implicit or explicit. Moreover, the use of certain assessment tools and procedures has direct implications for educational and instructional practices. Kohlberg and Mayer (1972) have outlined the three major educational ideologies and the associated theories of development that have served as the basis for devising educational goals and practices for Western man. The educational methodologies or curricula that have been extrapolated from these ideologies have been described by Lambie, Bond, and Weikart (1975), Stevens and King (1976), and Weikart (1972).

SHOW TRANSPARENCY 72 (T-72)
REFER TO WORKSHEET W-41

Philosophically, three streams of thought—romanticism, cultural transmission, and progressivism—have dominated educational decision making activities relating to the goals and methods of curriculum and instruction (Kohlberg and Mayer, 1972).

SHOW TRANSPARENCY 73 (T-73)
REFER TO WORKSHEET W-42

Transparency 73 presents the basic corollary model issues associated with each philosophical-educational ideology. Each of the associated corollary issues is described in more detail in the discussion that follows. It should be pointed out first, however, that taking into consideration each of the model and corollary issues as part of the assessment process in addition to providing a comprehensive "picture" of a child's current levels of performance, can identify the types of instructional derivations that are associated with different assessment techniques. This point should become more clear as we discuss the three major educational ideologies and their associated theories of development.

Romanticism

Jean Jacques Rousseau's philosophy underlies the romantic ideology. Rousseau's publication of *Emile: Concerning Education* in 1762 presented a view of childhood in sharp contrast to the traditional view at that time of children as "miniature adults." Society's function was seen as teaching children how to be proper adult members of the community.

In *Emile*, Rousseau traced the capabilities of the individual through five stages—corresponding approximately to ages 0-2, 2-12, 12-15, 15-21, and 21 onward. He believed that central to the child's development, particularly in the first two stages, were:

1. The avoidance of adult input in the education of the child, and
2. The ability of the child to *develop* and *grow* under only the guidance of nature.

Throughout *Emile*, Rousseau stressed that adults should avoid disciplining children and instilling ideas, feelings, and thoughts in their minds. Rather, Rousseau argued that adults should permit thought to proceed through the child's sense organs, in a spontaneous and uninterrupted manner.

A central theme of romanticism is that *health*, *growth*, and *development* are the same.

Cultural Transmission

The particular view of the child that Rousseau was criticizing was that espousd by philosophers such as John Locke. According to Locke, the child's mind was an "empty slate" upon which were impressed the ideas, rules, skills, and values of the society of which the child was a member. This was accomplished primarily through strict punishment of children for their misdeeds. Those who learned through this method were later rewarded by being permitted to receive formal instruction in religion, ethics, history, reading, and writing.

A central theme of the cultural transmission ideology is the transmission of information accumulated by a society through *habit* and *drill*. Development and the accumulation of cultural information are viewed as one and the same.

Progressivism

The major proponent of the progressive ideology has been John Dewey. Dewey's philosophy was primarily a reaction against the traditional educational system of the United States during the early part of this century.

The progressive ideology shares basic tenets with the philosophies of both Rousseau and Locke. Both progressivism and romanticism view the child as passing through successive stages of development. They differ, however, in terms of how this occurs. According to Rousseau, it is a natural process—not easily influenced by other than organismic predispositions. In contrast, Dewey argued that the types of experiences afforded a child are crucial in terms of the child's movement from one stage to the next.

The cultural transmission and progressive ideologies are in agreement that environmental manipulations are important for the development of the child. The two approaches are at variance with regard to the *procedures* and *goals* of these experiences.

SHOW TRANSPARENCY 74 (T-74)

The differences are as follows:

	PROGRESSIVISM	CULTURAL TRANSMISSION
PROCEDURES	Afford experiences that permit a child to be guided to learn.	Afford experiences that transmit direct information.
GOALS	To foster the ability to organize and utilize knowledge.	To teach appropriate functioning in society.

PAUSE FOR QUESTIONS
THEN
SHOW TRANSPARENCY 75 (T-75)
REFER TO WORKSHEET W-43

Special Considerations for Infants and Preschoolers

Models

The role of assessment is to detect aberrant development so that intervention and treatment can be provided as soon as possible. Scott (1978) discussed three models that have dominated theoretical perspectives on the classification of developmental status, the structure and content of intervention, the selection of measures for evaluation of outcome, and conclusions about the efficacy of intervention. The perspective used to guide assessment and intervention is likely to reflect, among other things, age and global status of the examinee, the predilections of the examiners, the test materials and milieu available for the assessment and, most important, the purpose of the assessment. The psychologist's role and the written assessment report vary across the three perspectives. An understanding of the models can help psychologists and other team members plan assessments that will provide the data needed to answer the referral questions.

SHOW TRANSPARENCY 76 (T-76)

Diagnostic treatment model. The diagnostic treatment model has its origin in the medical model, which is based on the idea that if a disease can be identified, it can be cured or managed by a prescribed treatment. This is precisely the approach to assessment that is needed for the neonate. It enables physicians to intervene in cases of phenylketonuria (PKU), high incidence drug use, and known blood related disorders. The goal is to reduce the impact of distress and disease on normal development.

From this perspective, assessment personnel have sought ways to identify children with brain dysfunction and to treat them medically. For example, adaptive or assistive aids can be prescribed to correct or direct growth and movement. Medical personnel are responsible for the classification, and the descriptors used reflect disease entities. The methodology for classification is the comparison of present status to expected status, and may include such things as body movements, shape, temperature, characteristics, response patterns, activity levels, etc. Current status may be measured in comparison to a table of expectations, such as those for height or head circumference.

If educational or psychological intervention is deemed appropriate, then psychologists may be involved in the diagnostic treatment model, but they do not always play a role. When medical personnel need psychological test or observational data in order to confirm a diagnosis, they will, of course, call on the psychologist. The data gathered by psychologists are expected to reflect individual differences in the course of normal development. While the data gathered are generally in the areas of perception or cognition, the psychologist may also be expected to provide language, social, or motor performance data and, in some cases, academic performance data. When information on some of these dimensions is requested, the psychologist is forced beyond the parameters of the diagnostic treatment model. The tests the psychologist uses in the diagnostic treatment model are most likely to be standardized measures that permit comparison of performance to norm expectations. These tests will be discussed in detail in a later section of this model.

SHOW TRANSPARENCY 77 (T-77)

Ability-enrichment model. The second model proposed by Scott is the ability-enrichment model. From this perspective, the task is to predict future performance of infants and children based on current functioning.

The validity of such predictions has been considered speculative at best and the merits highly questionable (Kamin, 1974; Mercer, 1973). Model advocates have taken the position that if children expected to perform poorly can be identified early, stimulating enrichment programs can be instigated and the result will be increased performance on educational and psychological tasks.

Psychologists play a major role in assessment using the ability-enrichment model: they determine child ability at given points in time and are expected to make classification decisions based on IQ and other performance scores. Once the psychologist determines the classification, the treatment is the same for all children who meet the predetermined criteria regardless of individual variability. The written report will be brief, perhaps just a test score. Observational or anecdotal data are not reported.

SHOW TRANSPARENCY 78 (T-78)

Assessment-intervention model. Scott's (1978) third model, the assessment-intervention model, is based on the premise that "an individual achieves specific behaviors or skills that can be described either in a developmental sequence or in terms of a task analysis, and that these skills and their prerequisites can be assessed and then changed by a structured training experience" (pp. 6-7). When behaviors are described in terms of a developmental sequence there are two possible foci for assessment and intervention. In one, the child's performance relative to a sequence of expected developmental milestones is assessed, and intervention focuses on gaps in the sequence and developmental milestones not yet attained. This focus is most often identified with Arnold Gissell.

The second branch of the developmental perspective is most often identified with Jean Piaget and his theory of cognitive development. The emphasis in this perspective is on the child's intrinsically motivated construction of knowledge through set stages of development. These stages are traversed through maturation, experiences with physical and social environments, and equilibration. Age related milestones are not critical in Piaget's approach. Stages are viewed as hierarchical, and higher level skills are dependent on the attainment of earlier developing schemes. These two tangents of the developmental perspective have generated different assessment and intervention strategies, each with a transdisciplinary following of advocates.

The second perspective of the assessment-intervention model described by Scott is task analysis. This involves an analysis of the skill components of a task and the planning of environmental manipulation and systematic instruction leading to acquisition of these skill components. John B. Watson, and later, B. F. Skinner, provided much of the theoretical perspective that undergirds this approach to assessment and intervention. Many researchers and educators working with retarded persons quickly accepted the basic tenets of this perspective. The discovery of a systematic way to manage behavior through the manipulation of stimulant, procedural or consequential events was a welcome approach through which changes could be readily demonstrated. These changes were not limited to the traditional measurement continua (i.e., intelligence quotients, mental ages, grade achievement scores, etc.) but could be expressed along such dimensions as frequency, duration, latency, and rate.

Despite these seemingly opposing perspectives, the developmental and the behavioral, a few educators have advocated melding the two approaches in assessment and intervention. Bricker and Bricker (1973), Kahn (1976), and Robinson and Robinson (1978) have described procedures in which developmentally delayed children were assessed on items from Uzgiris and Hunt scales (1975) and Escalona and Corman scales (1966), then taught schemes that were not in their repertoires. While some educators have offered evidence of further support for the use of these scales with handicapped populations (Wohlhueter & Sinberg, 1975; Rogers, 1977; Stephens, 1977) others (Switzky, Rotatori, Miller & Freagon, 1979; Swanson, 1979; White, in press) have challenged their use.

The advent of P.L. 94-142 and several state mandates to serve handicapped children from birth has produced decided shifts in psychological assessment. Psychologists are being asked to test infants and preschoolers as well as severely and profoundly impaired children. The focus is on using the assessment-intervention model with increasing requests that results be translated into viable educational plans. The sections that follow address considerations psychologists might keep in mind when assessing young handicapped children.

SHOW TRANSPARENCY 79 (T-79)

The Sequences of Development

Although a course in child development is a requirement for all psychologists, there is no guarantee that such courses provide psychologists the precise information needed for assessment of young children. The need for more information about development has resulted in a proliferation of charts, checklists, tables, tests, and books that detail developmental sequences across many behavioral domains. Table 1 in your worksheets (W-44) lists some examples of key sources for developmental sequences.

The development of vision and hearing. Today's psychologist has had little training in the assessment of vision and hearing in young children, particularly those who cannot verbally indicate what they hear or see. Nevertheless, knowledge of a child's functional use of vision and hearing is critical to making intervention decisions, and psychologists sometimes find that they must measure these sensory responses.

Assessment of vision. The age of the child, the mental development, and the severity of the visual loss determine to some extent what tests can be used by psychologists. Table 2 (W-45) describes some currently used vision screening tests and techniques that psychologists may find helpful.

Assessment of hearing. Psychologists may need to do basic auditory screening in order to determine the need to refer a child for a hearing assessment. If trained to screen hearing using a portable audiometer the psychologist can determine the possible presence of a hearing deficit. If, however, more rudimentary screening measures must be used, the sources listed on page W-46 of your worksheets might be helpful.

The importance of screening hearing in infants cannot be over-estimated. From infant laboratories have come refined techniques that are being applied in the assessment field. Examining the auditory localization behavior of five and six month old infants, researchers found significant differences when a complex visual reinforcement (dancing monkey) as opposed to no reinforcement followed sound localization. The impact of reinforcement on response maintenance is important information for psychologists when screening to determine whether a response is influenced by immaturity, cognition or perception. For recent information on this subject see Wilson (1978); and Thompson, Wilson & Moore (1979). Infant auditory acuity, unlike visual acuity, is almost equivalent to adult acuity from the first few days following birth. For detailed information on auditory development sequences the reader is referred to *The Developmental Resource*, Vol. 1 (Cohen & Gross, 1979).

The impact of handicapping conditions on development. When the psychologist is aware that a child has certain known impairments, it is required that assessment instruments be used that are less likely to penalize the child because of the handicap. Additionally, psychologists are expected to know the impact handicaps have on development and to assess the child with that in mind. While the impact of mental retardation is generally known to psychologists, few have been trained to evaluate how development is different when other impairments are severe. Table 4 (W-47) lists major handicapping conditions, aspects of development which they may impact, and key sources for further information.

The Selection of Formal Tests

Test selection is based on the purpose and model of assessment. As discussed before, assessment will differ depending on whether the psychologist is taking a developmental or a task analysis perspective. As Morrow and Coulter (1977) pointed out, test selection will also depend on the purpose of the assessment, which may be identification/placement or intervention/programming. Of the tests now available, those designed from a developmental perspective usually are more appropriate for making identification decisions whereas task-analytic assessment lends itself more readily to programming.

When a multidisciplinary team is involved in assessment, the educator on the team is frequently responsible for much of the testing for making specific programming decisions. Criterion-referenced or curriculum-referenced measures are most useful for making such decisions.

The psychologist usually selects cognitive measures. It is important to keep in mind that children may perform differently on different tests even though they all measure "cognitive development" (see, for example, Ramsey & Fitzhardinge, 1977). Additionally, administration differences and the ease of adapting items will need to be carefully considered. Table 5 (W-48) lists a few of the tests for infants and preschoolers that psychologists use.

SHOW TRANSPARENCIES 80 & 81
and go over each point.
REFER TO WORKSHEETS W-49 & W-50

Assessing Severely/Multiply Handicapped Children

Classification Considerations

Although the determination of service eligibility is one of the final steps in the appraisal process, underlying child characteristics and administrative requirements for classification are apparent from the pre-referral phase and set parameters for the entire appraisal process. Clearly articulated, legal definitions of handicapping conditions must be known if an appraisal is to result in information that is not only functional, but can fit into the administrative schema that leads to the provision of services.

Classification for administrative purposes. Several professional organizations and agencies have specified definitions they use to determine service eligibility. These definitions, while perhaps more widely accepted or functionally useful, are not necessarily those used by educational service systems and are not legally binding. The current, legally binding classifications were published in the Federal Register, November, 1974. These definitions are those incorporated into P.L. 94-142 and "EDGAR," the federal guidelines that were approved in 1980 to serve for the administration of grants and contracts. The administrative definitions that are legally binding are presented in column two of Table 8 (W-49 & W-50). In column three are functional descriptions of what the handicap implies in terms of skills and needs.

Classification for intervention. A definition that conveys the kinds of services needed rather than describing a condition is far more meaningful to educators. For the most part, such definitions or classification systems have not been widely accepted in administrative channels. A plea for this kind of definition was made several years ago in the classic volume *The Futures of Children*. Hobbs (1975) and his collaborators made several major recommendations including appraisal guidelines for classification of children to then Secretary of State Elliot Richardson.

The appraisal guidelines described by Hobbs require a broad perspective. The child is no longer the sole focus of the appraisal, and the concerns to be addressed cannot be measured through traditional assessment. To address these concerns the psychologist must observe behavior under various conditions and determine how the behavior impacts on educational needs. To this end, the psychologist will classify or define a person in terms that are more functional for educational interveners. Further elaboration of this approach to assessment was described in the previous section on infants and preschool children.

SHOW TRANSPARENCY 82 (T-82)

Consideration of characteristics. Knowledge of the basic behaviors that may characterize persons impaired in their ability to receive and process information or express themselves enables psychologists to attend to possible behavioral differences and determine to what extent "characteristic" behaviors are present in the individuals appraised. The strength of the characteristic is likely to be a major factor in the selection of appraisal procedures and in the recommendations for educational intervention.

Identifying characteristics. Although there are formal definitions of handicapping conditions such as those that were presented in Table 8 (W-49 and W-50) there are no standard, legally recognized lists of characteristics that describe persons having certain handicapping conditions. Table 9 (W-51-54 of the workbook) describes behaviors cited frequently in the literature as descriptors of the various impairments. No person is likely to possess all of the behaviors; nonetheless, persons may exhibit a cluster of the behaviors that provide information about the general behavioral patterns of a given individual.

GO OVER TRANSPARENCIES 82-85 (T-82-85)
pages 51-54 in workbook.

SHOW TRANSPARENCY 86 (T-86)

Assessment Considerations

The question "What tests do I give?" is the most frequently heard question when a psychologist plans to assess a person with multiple or severe impairments. It is natural and expected, as there are few persons who, during their training, actually assessed persons with severe impairments. Additionally, there are only a few formal tests that are appropriate for persons with severe impairments. No one test will do the job adequately, or legally for that matter. It becomes a matter of selecting the best measures that will meet administrative restrictions, service agency needs, and the instructional needs of teachers and care providers. In most cases some type of formal assessment is required for administrative decisions. Curriculum referenced or informal, test-teach-test procedures provide the information teachers need. Psychologists need to know how to respond to both administrative and educative needs.

SHOW TRANSPARENCY 87 (T-87)
REFER TO WORKSHEET W-55

Selection of Formal Measures

Regardless of the kind of handicap the person being tested has, there are general test characteristics that will have effects on performance and should be considered in test selection. The following test characteristics are desired:

Appropriate standardization population. Perhaps it is ludicrous to even state that it is appropriate to give a test that has data from a population of persons with the same handicaps. So few tests have this that we can count them on one hand. Nonetheless, this is a priority and should be considered in test selection and interpretation.

Untimed. Speeded tests may be inappropriate for handicapped persons. Select untimed tests that can be given in short time periods and over several days.

High stimulus value. Tests that use real or miniature objects for manipulations are preferred over tests that require the testee to look at words and pictures, or attend to specific auditory instructions. The appeal of the individual item is also a consideration. Persons are attracted to brightly colored objects that invite interaction.

Limited dependency on language. If the purpose of a particular test is to determine skill in a cognitive or motor domain, then select tests that examine those skills irrespective of language understanding or use. In almost all cases, severely impaired persons will have concomitant delays in the language area.

Content reflects experience. Due to the fact that their movements may have been limited to a narrow range, many severly impaired persons have been dependent on others for movement and activity and have had fewer opportunities to initiate or participate in learning situations. What experiences they have had are usually concrete and can be reflected best when demonstration does not require abstractions.

Flexibility in administrative requirements. Tests that attempt to assess the competency of a person on a given task are desirable if the focus is on the independence-dependence continuum and not on a pass-fail basis. When performance can be scored along a continuum it is easier to delineate a child's strengths and weaknesses.

SHOW TRANSPARENCY 88 (T-88)
REFER TO WORKSHEET W-56

Testinging additional points in choosing tests for deaf/blind persons

In addition to considering the general test characteristics listed above, a psychologist should note the follwoing additional points in choosing tests for deaf/blind persons:

Administrative demands. Instructions can be demonstrated, gestured, or signed to most deaf/blind persons; if no vision or hearing is present, then the test selected should include items that require tactile discriminatory responses.

Natural qualities. If vision is to be used, pictures or stimuli must be large, colored and clearly outlined.

Naturalistic performance. Performances can be scored by observing the person in the natural environment.

Adaptive behavior. Heavy emphasis should be placed on adaptive behavior and less stress on symbol manipulations, long term memory, and immediate application of past learning.

SHOW TRANSPARENCY 89 (T-89)

Testing Orthopedically Impaired Persons

As noted in Table 9 (W-52), orthopedically impaired persons are frequently hampered by vision and hearing impairments. These restrictions make assessment even more challenging. The following additional test characteristics should be considered:

Performance demands. The most critical concern is that the person's responses must be readily understood by the examiner. This alleviates frustration for both the examiner and the testee and is essential if responses are to be recorded validly. From either prior observation or information from an informant, the examiner can determine how the person indicates a choice (e.g., saying, pointing, nodding, eye blinking, body gesture, etc.), and on the basis of that information determine if responses can be made through adapting the item requirements to the person's response mode.

Material placement. Material must be placed in a position that will allow easy viewing and interaction for the person being tested.

Material array. If visual perception problems are a concern, select materials that require minimal skills in figure ground discrimination or the ability to see a gestalt or impose closure.

Testee placement. Select tests that can be administered to persons who must be placed over bolsters, in side layers, on prone boards or stand-in tables, or in corner chairs. Psychologists should use the same positioning equipment used by teachers in the classroom if at all possible. If necessary the material or conditions should be altered so that the child's response can be made with as much ease as possible.

SHOW TRANSPARENCY 90 (T-90)

Testing Multihandicapped Persons

The most critical concern is to determine the person's preferred way to express knowledge or intent. To select test procedures that permit as much expression as is possible the following factors should be considered:

Performance demands. After observing the person, determine the range of mental, communication, motor, self care, and social or adaptive behavior that will be tested. Use these ranges as the basis for test selection. Determine if the person has the behaviors necessary to respond or interact so that performance can be measured. Minimal language requirements or use of nonverbal forms of communication are preferred except when language skill itself is being assessed.

Material placement. Make sure items can be responded to in some manner. Place items in the child's tactile or visual field and if necessary, move the object around to catch the child's eye before drawing the object to midline and to the at-rest position.

Instructions. Select tests in which the desired outcome can be demonstrated through action. Use gestural instructions if permitted.

Conditions. Test in environments that evoke the desired behavior if at all possible. Make test situations appear to be similar to classroom expectations. For example, if a child is receiving food reinforcement for task performance in his or her daily educational environment, test the child first under regular testing conditions, then assess using the food condition.

SHOW TRANSPARENCY 91 (T-91)

Testing Severely Mentally Retarded Persons

Although various factors will determine how skilled a severely retarded person will actually be, it is assumed that many skills assessed will fall in the developmental range of birth through six years. Some higher level adaptive skills may be considered critical, such as the ability to attend to a task for 20 minutes or to process material in an assembly line task. In testing severely mentally retarded persons, psychologists will want to select measures according to the characteristics noted earlier as well as the following:

Appropriateness of stimuli. Regardless of the estimated "mental age" of the person, it is helpful in testing to use objects that are likely to be encountered in the real life environment of the person being tested. For example, if we want to test whether a severely retarded person recognizes an object as one that can be squeezed and knows how to squeeze it, we could present the child with an infant toy such as a baby doll or similar soft toy from an infant testing kit. Such a toy, however, may not have much stimulus value to the severely handicapped person. A soft ketchup bottle or tube of shampoo or hand lotion might answer the same question. These objects are more likely to be experienced on a daily basis by the retarded older person, than are the infant toys.

Testing environment. Selecting tests that permit assessment in optimal environments and across environments will aid persons in placement and programming decisions.

Tests with behavior sequences. Some tests that are relevant for placement decisions include subtests which have behavioral sequences; that is, performance on later items depends on success in accomplishing earlier items. Such tests provide data for educational programming of severely retarded persons by identifying the point at which behavioral sequences break down.

Predictive accountability. Regardless of the need for professionals to refrain from placing ceilings on performance expectations, it is important to some direct and indirect care providers to have some idea of long term expectations. Knowing that severely retarded persons have performed on a test in a certain manner and are likely to develop certain other skills in the future can be valuable data. Tests that have been normed on or used with severely mentally retarded persons are more likely to have these kinds of data available.

Selected tests for purposes of identification and placement. We hesitate to provide a list of tests that can be used or adapted for use with severely handicapped persons. The possibility of misinterpretation and misuse is high; nevertheless, despite the state of the art, laws require testing to qualify a person for special educational services. Because there are few tests which allow accurate classification of severely mentally retarded persons, many psychologists believe such assessment is inappropriate; nonetheless, it is necessary if services are to be provided. When eligibility criteria state that a person must score "four standard deviations below normal," that means we must use tests that have norms and allow such comparisons.

Norm-referenced measures provide data for identification and placement decisions, but they do not provide useful information for designing instruction; an entirely different kind of testing is required. Curriculum-referenced testing is one assessment method which helps in program planning. This method requires knowledge of what curricula are available for persons with various handicaps, and skills in measuring other critical dimensions of behavior such as rate, latency, duration, and trials to criterion. Table 10 (W-58 of the workbook) lists tests that are frequently cited in the literature as those used for purposes of identification and placement decisions or intervention and programming. Whether a given test qualifies as an identification/placement instrument or an intervention/programming instrument is a matter of personal opinion. Some of the tests are used both to place and to program. The tests listed are only those that provide data in the area of cognition and adaptive behavior. If the psychologist must provide data on language, motor, and emotional behavior, other sources will be necessary.

Summary

In this section we have described four impairments and the testing considerations to take into account with these impairments. It is critical that examiners know these considerations when they select and administer tests. While psychologists are most likely to be responsible for testing to identify or confirm the presence of an impairment and to provide data from which a placement decision can be made, they may also be asked to provide information that will assist the teacher or care provider in planning an appropriate intervention program. Recommended procedures and selected instruments were provided.

ASK FOR QUESTIONS

ASSESSMENT REPORT PHASE

Integration of Data Into a Comprehensive Report

Turn to page W-59 and write your definition of a comprehensive report—what are the basic elements that make a report comprehensive?

ACTIVITY

Allow approximately 5 minutes for participants to complete the task. At the close of the time period say:

"Someone give their definition and the basic elements in a comprehensive report."

Write basic elements on a chalkboard or clear transparency. Ask the group if someone can add to the list. Then say:

"Here is our definition of a comprehensive report and its basic elements."

SHOW TRANSPARENCY 92 (T-92)

Read definition and compare to the group generated list of basic elements.

SHOW TRANSPARENCY 93 (T-93)

At the pre-assessment phase of the appraisal process we had three sources of assessment questions. They are shown on this transparency.

Read the three sources

At the comprehensive individual assessment phase team members were assigned to answer those assessment questions. The nature of the questions guided them in appropriate data collection.

Integration and reporting of data gathered from the preceding appraisal phase now becomes a relatively simple task of stating the questions and their answers. Because the questions have been generated directly from a unique referral problem and answered through gathering data unique to the individual, the assessment process has been "customized." Writing the report merely becomes a task of choosing a format deemed appropriate by the multidisciplinary team.

Three suggested report formats can be found on pages W-60, W-61, and W-62. Turn to W-60 first for some clarifying comments.

SHOW TRANSPARENCY 94 (T-94)

On this form as well as the other two, "demographic data" and "definition of problem" are the first two headings.

Work samples are provided under the next heading to illustrate the types of errors being made. This heading fits well with the next—alternatives tried and supporting data showing why the alternatives did not work. By providing such data, we avoid the problem of giving the teacher only information she already knew or making recommendations that have already been tried.

The heading "screening/referral data" represents a summary of all known data about the student. It assures that attempts were made to consider known information to answer questions. It would assist us in avoiding duplication of data collection and guide assessment into areas for which we have little information. The "assessment questions" heading is also present on all three forms but in different styles. In order to promote precise, customized assessment, specific questions formulated from known information sources and the referral problem constitute a needed aspect of the appraisal process. "Answers" to assessment questions and "summary" constitute the final headings for this report format.

SHOW TRANSPARENCY 95 (T-95)
REFER TO WORKSHEET W-61

Format two differs from format one primarily in the more systematic outlining of assessment questions. The known data section is a combination of three sections from format one: work samples, alternatives tried, and screening/referral data.

SHOW TRANSPARENCIES 96 (T-96) & 97 (T-97)
REFER TO WORKSHEETS W-62 & W-63

Format three differs from the other two in providing a detailed organization of known data along student and school system characteristics. These two subheadings represent the two major sources for answering the "why" aspect of the referral problem. Questions regarding educational programming are couched in two subparts: student characteristics—cognitive (for norm referenced achievement tests) and task demands—(determining instructional levels for math and reading).

SHOW TRANSPARENCY 92 (T-92) AGAIN

If we apply our definition of a comprehensive report to all three formats, they all have the basic elements, including descriptions of the reason(s) for referral, the individual evaluation process, and the results in sufficient detail for decision making.

Determining When a Report is Jargon-Free

One of the most difficult aspects of report writing is using terminology understandable to all possible audiences needing the report information. Since P.L. 94-142, parents have become a larger group of consumers of assessment reports; therefore, efforts to make our written reports more understandable to them are necessary.

SHOW TRANSPARENCY 98 (T-98)

This is a resource manual on writing reports specifically developed for special education personnel. We will highlight some parts of this manual here as they pertain to this section of the module. A suggested format for report writing is offered. Five areas are outlined for organizing assessment results.

SHOW TRANSPARENCY 99 (T-99)

Examples of rewriting assessment statements for clarity are also offered.

SHOW TRANSPARENCY 100 (T-100)

For example, the statement "During testing the student was easily distracted," could be rewritten to say, "during testing the examiner had to regain the student's attention 15 times." Additional illustrations are also provided.

Pragmatically, the best way to assure that the assessment report communicates to parents is to have the parent read the report and identify unclear areas that need to be rewritten.

Turn to page W-64 and complete the exercise.

Allow participants 5 to 10 minutes to complete the task. At the close of the time period say:

"Let's compare some of our rewritten statements."

Ask for one example per sentence from participants writing them on a chalkboard or clear transparency. Briefly discuss differences.

By posing assessment questions around the referral problem, clear communication with parents can occur both verbally and in the written report. In any event, having a parent critique the written report certainly will assure a jargon-free document.

PAUSE FOR QUESTIONS

EDUCATIONAL PLANNING PHASE

Considering Educational Needs and "Adverse Effects" As Part of the Eligibility Decision

SHOW TRANSPARENCY 101 (T-101)
REFER TO WORKSHEET W-65

School psychologists as generalists have typically had responsibility for assessment in a number of different domains. Since the advent of P.L. 94-142 they have become more heavily involved in making decisions required for educational programming and placement by serving as either LEA representatives or evaluation team representatives at the IEP planning meetings. As members or leaders in these planning groups it is essential that psychologists have some understanding of need identification and "adverse effects" in making eligibility decisions. Even when they don't serve as IEP team members but only as diagnosticians during the assessment phase, they must have acute awareness of need identification in order to carry out assessment properly.

In order for an IEP team to make proper program and placement decisions, assessment data should be helpful in identifying needs in the following areas:

Curricular/Academic Needs of the Student

What are the academic strengths and weaknesses of this student? This determination may be made via a number of conventional routes such as using standardized tests (general achievement tests or formal diagnostic tests) and/or informal assessment approaches (criterion-referenced tests, informal diagnostic tests, etc.). Qualitative and descriptive information about a student's skills and needs should also be sought. This can be obtained from classroom observations, anecdotal records and teacher-made tests. Assessment information should be reported for each instructional area. Typically this information is collected during the assessment phase. Specific student academic needs can be identified by careful analysis of this data.

Related Services

This term refers to any supportive services that may be required to assist a handicapped child to benefit from special education. Included might be transportation, counseling, corrective devices, speech therapy, physical and occupational therapy, psychological services, recreation, etc. Needs in these areas are also typically identified from assessment data collected earlier by diagnosticians who specialize in these areas, with the exception of transportation.

Learning Style of the Child

Because each individual learns at a different rate and may learn best utilizing a specific instructional approach, a student's learning style(s) should be determined. A student might benefit from one-to-one teaching (teacher-student, peer tutoring, teacher's aide-student, etc.), small group interaction, or behavior management. Whether a student learns best using a particular cognitive style, repetition, memorization, sight learning, etc. needs to be ascertained.

Such evaluation requires that the psychologist or other specialist evaluate the effects of different approaches on the student's learning rate and mastery in actual instructional tasks.

Social/Psychological Needs

What needs does the student have for social-emotional adjustment? Does his exceptionality pose potential acceptance problems with his peers? Does the student need behavior modification within his program or some other kind of behavior management structure? Is a very supportive and protective teacher or a more demanding teacher likely to be successful with this student?

Familial Involvement

Since the parents were the child's first teachers, observers, and evaluators, recognizing their integral and vital roles is essential in determining a child's needs. Their inclusion in planning an educational program cannot be considered a courtesy but rather a necessity. Parents can offer important information about a child's history, coping behaviors, and present status. In addition, their inclusion gives them recognition, confidence and support. While utilizing the parents' expertise in these areas, it is also advantageous to explore the effect of the child's needs on them and other family members. No doubt these needs have placed heavy burdens—emotional, physical, and financial—on families. Guilt, ambivalence, bitterness, denial, rejection, overcompensation and anger are some feelings that may be encountered and need to be explored and dealt with in order to accomplish the ultimate goals of assisting the handicapped child.

It is one thing to be able to identify and elaborate on a child's needs and quite another to translate these needs into possible environmental interventions. The professional needs an awareness of existing programs, facilities, and possibilities. This typically requires an active search into existing school district placement possibilities (both regular classroom and special education programs), intermediate unit programs, private schools and institutions, state schools, and out-of-state programs. It involves scrutinizing community organizations and charitable agencies; and it includes being creative and free-thinking in terms of novel possibilities. In other words, avenues and approaches not tried before might be inspected for their potential.

Another approach is to make accommmodations in existing programs as well as adaptations in personnel. Certain physical adjustments like the installation of ramps or handrails might be necessary to create an acceptable placement. Using tape recorders for a visually impaired student in a regular classroom might be a "creative" adaptation. Also using paraprofessionals, non-handicapped student tutors, parent-aides, etc. allows for the efficient use of personnel in meeting many of a child's needs.

Although it is important to be creative and not bound by "tunnel vision" in terms of what already exists. one must be aware of what the environment can provide and what monies are available. A balance between being realistic and being creative needs to be reached—a difficult and challenging task.

Much time is spent in determining if intervention is necessary and, if so, how to accomplish it. An awareness of the possible negative impact of such intervention is essential. First, one must be able to determine what kinds of potential educational solutions could have an adverse effect on the child. Some examples are: placement that involves excessive travel; placement with an inappropriate peer group; and placement in a facility that is inaccessible due to lack of physical accommodations. Other possible adverse effects include: hostility toward or lack of acceptance of student by peers within the placement; and labeling (i.e., creating a bias with the use of such terms as "mental retardation," "learning disabled," "emotional disturbance," etc.). School psychologists must look beyond a label to the individual, his needs and behaviors. Our good intentions can hurt people if we are not cautious. We must make sure that we not only have good intentions but are, in fact, helpful to the child.

PAUSE FOR QUESTIONS

Then tell them it is time for the next activity.

ACTIVITY
IDENTIFICATION OF STUDENT NEEDS

1. Tell participants to turn to pages W-66-72 of their worksheets for this activity. The purpose of this activity is to allow participants an opportunity for practice in identifying student needs.
2. Allow participants time to review the case study materials before having them form four- or five- person working groups. Each group should designate a leader/recorder who reports back to the larger group.
3. Each group should complete a worksheet.
4. A wrap-up discussion of the entire group activity should address the following:
   a. A summary of Mark's problems. An answer guide for the worksheet is provided here for trainer reference. It is recommended that this be reviewed at the conclusion of the discussion to insure that a common data base is carried into subsequent activities.

30 minutes	Group work
15 minutes	Discussion of large group
45 minutes	Estimated time

For Further Reference

McHale, S.M. and Simeonsson, R.J., Effects of interaction on non-handicapped children's attitudes toward autistic children. *American Journal of Mental Deficiency*, 1980, *85*, 88-124.

ANSWER GUIDE TO ACTIVITY
IDENTIFICATION OF NEED

Directions: The case study materials on Mark Sampler correspond to the kinds of data that are recommended for consideration in identifying student needs. You as a group are to use the case study data to define the student's needs.

Defining Student Problems(s)

Academic Problems: Reading comprehension—interferes with Mark's ability to understand word problems in math and the required reading in social studies. Sequencing problems—affect his ability to answer questions in writing without some direction or assistance.
Problems Related to Classroom Procedures: Sequencing of ideas is a problem for Mark, in addition to reading comprehension—makes it difficult for him to attend to and understand social studies presentations which are mostly lecture format or reading—appears "distractible" to teacher.
Behavior Problems: Distractibility—seems more related to Mark's difficulty with sequencing of ideas and comprehension of required reading.

SHOW TRANSPARENCY 102 (T-102)

Relating As a Team Member in the Decision Making Process

The school psychologist should be an integral part of all phases of educational assessment, planning, and implementation for handicapped children needing special education. As specified in P.L. 94-142—"The evaluation is made by a multidisciplinary team or group of persons, including at least one teacher or other specialist with knowledge in the area of suspected disability." Typically the psychologist serves on this professional team which determines a child's eligibility for special education services.

P.L. 94-142 also requires that an IEP planning meeting be held and, at least, the following persons must attend: LEA representative, teacher(s), parent(s), student, if appropriate, and a member of the evaluation team if the child has been newly identified as handicapped and in need of special education.

In this meeting, the school psychologist may function as the LEA representative or as the representative of the evaluation team. In either case, this role involves a number of activities. The psychologist may give background data from parent/guardian interviews, review and interpret test results, share behavior observations, ask the regular education teacher for validation of these observations in the classroom, summarize what has been discussed, and point out how these facts help determine possible special programs and placements.

The school psychologist as a facilitator needs to provide special, active support to both parents and students so they may actively and productively contribute to the program and placement planning process. In considering the issues below, keep their special needs in mind.

SHOW TRANSPARENCY 103 (T-103)
REFER TO WORKSHEET W-73

In this planning meeting, as in any group process, certain dynamics occur. The school psychologist must be familiar with group dynamics and the leadership process. Careful analysis will show two main kinds of positive activities in a group: activities directed toward reaching the goal of the group or "task functions"; and activities that affect the welfare and solidarity of the group, or "group maintenance functions." These may occur separately or coincidentally.

All work groups try to reach some goal and this process comes under the heading of "task functions." We may readily assume that everyone in the group knows the group goal, but such may not always be the case. The goal may be stated in such general terms that members of the group have quite different ideas about what it is.

Point to #2, Transparency 103 (T-103)

Acquiring information is also a task function. The group needs to make provisions for deciding what constitutes relevant information and for obtaining it.

Point to #3, Transparency 103 (T-103)

Coordinating individual efforts is likewise an activity directed toward reaching the goal of the group. Some method is needed for giving out assignments and deciding who will perform certain functions. This may be done by means of a chairperson or, more informally, by some common understanding or decision.

Point to #4, Transparency 103 (T-103)

Some way must be found to decide how well a group is reaching its goal. A set of criteria against which products or ideas may be evaluated should be established. These criteria should be set up by the group when possible, and should be known to all group members. Developing decision making techniques and evaluating group efforts are both parts of this task function. Rules for decision making enable the group to have some way of knowing when a decision has actually been made by or for the group.

Point to #5, Transparency 103 (T-103)

Finally, the task function of developing procedural agreements in a group must be considered. Procedural agreements may include such things as the conditions under which a new member may enter the group or the order in which information will be considered. They help the group run smoothly and efficiently.

SHOW TRANSPARENCY 104 (T-104)

The second type of activity in a group falls under the category of maintenance functions, or activities which affect the welfare and solidarity of the group. First under this heading comes the idea of providing for physical needs. In order to work effectively, the group needs the right type of surroundings and equipment. The element of fatigue must also be considered, especially if a child is a member of the group. Groups must be given the opportunity to take breaks or stop work altogether when necessary.

Second is the necessity of providing for social needs. People in groups often want to chat about personal matters, share information about mutual friends, or make "small talk."

Another maintenance function is that of settling differences. In the course of any group work, differences in points of view will arise. These must somehow be dealt with or settled if the group is not to be split into a number of dissenting factions.

If the solidarity of the group is to remain intact, communications must be kept open. In any group, people have different abilities in speaking and different degrees of fear of speaking (especially parents). Everyone should have the opportunity to contribute. Special effort may be necessary to encourage more reticent members to speak or to help "over-participators" to control their tendency to monopolize. Keeping open the channels through which feelings are expressed can be very difficult. A warm and permissive atmosphere facilitates this communication.

Finally, providing support and encouragement to individual members and to the group as a whole is an activity crucial to the group's well-being. This may take the form of expressing appreciation for another's contribution; or it may mean expressing delight at the group's accomplishment.

All members of a work group need to understand these functions if the group is to accomplish its goals and maintain its solidarity and well-being. However, the group leader must be even more acutely aware of these dynamics if he or she is to insure maximum efficiency and success in achieving the goal itself and maintaining positive feelings among group members. The school psychologist, by virtue of his or her clinical background, training, and experiences in group processes, and because he or she is a generalist as well as someone trained to be perceptive and sensitive to human interactions, may be the best equipped member of the IEP planning team to assume the role of group leader.

As group leader, the school psychologist should be a good listener. This statement may seem trite, but listening is actually a skill that must be developed and refined. Active listening involves really *hearing* what is being said. It requires asking for clarification and repetition when necessary, and sometimes means asking direct questions.

Also in support of the idea of the school psychologist as group leader, is his or her typical facility in handling conflict and seeking agreement. There are a number of mechanisms which school psychologists have at their disposal for use in mediating group process. These include skills in clarifying terminology, restating opinions, encouraging less vocal or less assertive participants, defining criteria or procedures for decision making, reflecting back, accepting divergent points of view, elaborating, etc.

While we recognize that school psychologists have many skills which make them good group leaders, we must also admit that each individual has certain personal limits (even the school psychologist!). We must be aware of our own expertise and orientations and be able to step back and say, "This is *not* my area of specialty. Perhaps someone else can provide more input in this particular area."

The group must assign responsibility for coordinating service delivery to a certain individual. Once placement options are decided upon, someone must see that the plan is implemented. The school psychologist can determine responsibility for this as group leader, or, in a membership role, can facilitate the goal of assigning responsibilities. All the planning in the world will not benefit a student unless someone ultimately takes responsibility for carrying out the planned activities.

PAUSE FOR QUESTIONS

Determining the Appropriate Placement

SHOW TRANSPARENCY 105 (T-105)

The right of handicapped children to a free, appropriate education demands that each member of the IEP planning team, including the school psychologist, have a clear, specific knowledge of existing programs and services. This may require research into what is available in the community. The law requires a continuum of possible educational placements which may include:

1. A regular class in a regular school with supportive services.
2. A school district special education program in a regular school
3. A school district special education program in a special facility.
4. An intermediate unit program in a regular school.
5. An intermediate unit program in a special facility.
6. An approved private school program.
7. A state school program.
8. An approved out-of-state program.

In addition, there may be different possible organizational patterns for special education programs such as itinerant programs, resource rooms, and full- or part-time special classes.

Not only must school psychologists know what special education programs exist in their communities, but they must also be innovative and free-thinking when considering possible placements. This encourages the utilization of community resources and personnel perhaps not previously considered in terms of typical placement options. For example, charitable organizations such as The March of Dimes or Easter Seals might provide services that could meet a student's needs. Community groups like YMCA's, mental health centers, or advocacy groups might offer programs to be considered in a child's placement. While this free-thinking approach is encouraged in order to explore all the possibilities, we must be practical. The delivery of these services must be feasible in the context of finances, accessibility, acceptability, etc.

Another avenue to explore when thinking of placement options is that of making accommodations in existing programs. This does not imply in any way compromising the student's needs. Rather it may be a realistic, appropriate way of achieving the best placement option for a given situation. Suggested possible accommodations were described earlier in this workshop.

In planning placement options for a student, related services must also be considered. Related services are defined in P.L. 94-142 as transportation and other such developmental, corrective, and supportive services that may be required to assist a handicapped student in benefiting from special education. Such services may include, but are not limited to, audiology, psychological services, physical and occupational therapies, recreation, counseling and social work; however, merely considering such services is not enough. A placement that does not allow for needed related services is restrictive. Locating them, incorporating them into the IEP plan, and ensuring their delivery is required. The extent and duration of such services must then be stated in the IEP plan so that the commitment of these services is clear to the student, parents, and any other participants in the IEP planning meeting. Finally, a specific individual must be assigned the responsibility of ensuring the delivery of these related services. This is typically the same individual who is assigned responsibility for the delivery of the program.

FOR FURTHER REFERENCE

Emory, R., and Pino, R. *Preparing Educational Training Consultants.* Portland: Northwest Regional Educational Laboratory, 1974.

Recognizing Various Forms of Bias in the Educational Planning Phase

SHOW TRANSPARENCY 106 (T-106)

There are many factors that may contribute to biased decision making. For example, the appearance of the child may increase the possibility that he or she will be labeled "mentally retarded" when in fact such a handicap does not exist. Language characteristics such as a minor speech defect or the use of a foreign language as the primary language might increase (or decrease in some instances) the chances that a child will receive a handicapped label.

Socioeconomic background tends at times to influence the choice of exceptionality. A middle class child might have a better chance of being labeled as learning disabled, while a lower class child with the same characteristics might have a higher probability of being labeled as mentally retarded. In addition, we must face the fact that racial and ethnic backgrounds can have, at least, a subtle biasing effect.

Despite education and expertise, individuals (including school psychologists) may have biased perceptions which influence the choice of exceptionality or the placement of a student. A handicapping condition itself may be a source of bias. Some individuals may feel that children with cerebral palsy are frequently or always retarded. All children with Down's Syndrome are *not* necessarily moderately or severely retarded, despite opinion to the contrary. Some persons may consider severe non-fluencies or asthma to be signs of "emotional disturbance," while others think that all retarded individuals are highly sexed. Many people attribute mysterious extra senses to the blind and the deaf. Often people feel that mixing handicapped students in with the general population will somehow hurt the "normal" children. The list of subtle, often unconscious, biases is lengthy and may influence us must more than we are aware. It is the responsibility of school psychologists to recognize these biases in themselves and perhaps make others aware of such preconceived ideas. Keeping the child's best interests at heart must be more than a platitude. It is a necessity, requiring thought and objectivity.

Sometimes, even when meeting a child's needs is the primary goal, budgetary restraints can inflict a certain bias toward using only existing programs. For example, it is often easier and less expensive to classify a student as "learning disabled" or "mentally retarded" and to place him or her in the existing program than to make needed accommodations or innovations. Likewise, a lack of expertise or exposure to many facets of special education can lead to a too pragmatic approach, which in turn may actually limit or hurt the child. School psychologists, again, must actively investigate all possibilities of placement and weigh the pragmatic against the creative to achieve the appropriate placement.

The school psychologist, like others on the planning team, may feel subtle pressures from many directions. While it is accepted by acclamation (if not in fact) that the child is top priority, the need to satisfy other "masters" also exists. We have already mentioned fiscal constraints. Sometimes too the desirability of making a program acceptable to the community exerts its own pressure. For instance, using the term "learning disabled" for a class may seem more acceptable than calling it a program for the "mentally retarded." Similarly, adjusting the name and classification of a program to justify placement of one or more children may occur. Such an action may be convenient, but it is probably inaccurate and potentially damaging.

It is generally accepted that once a professional is entrenched in the system it is easy to develop "tunnel vision." That is, professional orientations and specialties may color judgment and thinking. This may also occur in the area of administration. When an individual is responsible for the administration of funds, the pacification of parents and staff, the proper utilization of personnel, and the general operations of a district or facility, it is quite possible to lose sight of the primary goal—e.g., meeting the special education needs of the child.

When funds, time, space and/or personnel are limited, problems are created. There may not be enough state or federal funds appropriated to adequately support programs. The large amount of paper work required to identify a child as handicapped may discourage teachers or principals from pursuing that option for some children who may need it. The difficulty of dealing with parents of handicapped children may likewise color an administrator's thinking. Handicapped children present an image to some administrators of an on-going, constant "incurable" situation. They may feel these children do not "get better" but remain a difficult problem requiring often difficult and costly solutions and are better educated in church basements than in community schools.

Much effort must be expended in attempting to eliminate personal biases in the process of identifying and assessing handicapped children. Once the decision has been made that a child needs special education, actions which follow that decision should continue in the same unbiased fashion. Conscious efforts are required to remain focused on the primary goal—i.e., meeting the special education needs of the child. Neither personal biases nor pressures caused by financial limitations, personnel problems, or lack of expertise should interfere with the achieving of this goal. Otherwise the child will pay the price.

ASK FOR QUESTIONS

Incorporating Parents as Integral Members of the Educational Planning Team

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SHOW TRANSPARENCY 107 (T-107)

The goal of the IEP meeting is to develop a plan that meets the special education needs of the identified child. Both parents and professionals must agree on this goal and both have valuable insights and input to help achieve it. But, to meet this end, parents must be included in the planning. This means, first of all, that they must attend the meeting where the IEP is developed. P.L. 94-142 encourages and provides for the active participation by parents in the planning of an IEP for their child. Each local agency is to take steps to insure that the parents (or guardian or surrogate parent) are present at this meeting or are afforded the opportunity to participate. Parents participate by providing relevant information about the student and by assisting in the development of the components of the IEP. Written notice must be sent to parents to inform them that such a meeting will be arranged. This meeting is to be scheduled at a mutually agreed upon time and place unless this is clearly not possible.

If parents do not respond to written notice, then they should be notified by telephone or via home visit. Either of these methods clearly requires more effort than merely mailing a form. However, involving the parents in the educational planning for their handicapped child is more than a courtesy; it is a necessity. At least two of the above mentioned methods must be attempted and documented. This documentation is to include detailed records of telephone calls, copies of correspondence sent, responses received, and detailed records of visits made to the home or place of employment.

If parents are unable or refuse to attend the planning meeting, attempts should be made to collect information from them at another time. This can be done over the telephone or in a home visit. Their input is still necessary, as is the attempt to develop some type of working relationship.

Once the parents have agreed to participate in the IEP planning meeting, active efforts must be made to build a climate of acceptance and recognition of the parents' important roles. Too often parents feel intimidated by teachers, psychologists or other professionals. They may feel angry, hostile, or anxious. Many specific things can be done to alleviate these feelings and to make the parents aware of their value in planning for their child's educational needs. First, professionals need to assume a sincere attitude of warmth and acceptance toward the parents and show that they recognize the vital contributions parents make in the planning meeting. Professionals may need to assume a subordinate role in order to ease feelings of inadequacy that parents may have. Encouraging and accepting the parents' input concerning their child's needs and strengths validates their knowledge of their child.

In many cases, parents will have the insight to suggest themselves that their child may need special services. Allowing them to reach that conclusion without prior suggestion of other team members can do two things. It may convince them that something finally needs to be done about a problem that they have long recognized themselves; and it may enhance their confidence in their ability to observe, identify, and reason, thereby making parent-professional communication easier and more productive. Encouraging parents to offer feedback to the team about their child's history and behavior, answering their questions patiently and clearly, and assuring parents of the confidentiality of information will also do much to promote feelings of acceptance.

It is important to stress a positive attitude in the planning meeting and to be enthusiastic about the plan. It is also necessary to present a realistic picture to the parents, to be honest with them and give them the information they need to make decisions regarding their child. They, too, need to know what services are available and what accommodations can be made. Likewise they need to know what related services are and where they exist (in the regular school and in the community). Some services may be familiar to the parents and, therefore, reassuring; others may be totally foreign to them and require more explanation.

It will be the responsibility of a professional on the planning team (perhaps the school psychologist) to define and interpret the law to the parents so that they are aware of their rights and those of their child.

The school psychologist and other professionals must be aware of possible barriers to parents' understanding of the entire educational planning process. For instance, educational jargon confuses, excludes, and intimidates parents. Using layman's terms, defining terms, and allowing time for questions can eliminate this particular barrier. Parents may have language difficulties of their own. They may speak a foreign language or have minimal education and difficulty expressing themselves. Parents may also have handicaps which make communication difficult. Anxiety regarding the child's needs or about the meeting itself may cause blocking. Resentment or hostility may exist because of earlier, unsuccessful relationships with educational professionals. Parents may deny or feel guilty about their child's handicap.

Once the parents have gotten to the IEP planning meeting and efforts have been made to incorporate them into the group, further efforts should be made to get them actively involved in the educational process. Parents spend most of every day with their child and know him or her well. They can provide a history of their child's behavior, coping techniques, and interests. They can help indicate present levels of functioning. Parents who relate and communicate well with their child can interpret his or her needs and feelings to the team.

Parents' and professionals' resources should be pooled to develop and implement an approach to introduce the idea of change to the child himself. Parents and professionals together can help orient the child to his new environment. Parent-professional interaction may continue and grow beyond the team meeting. This ideal situation helps the parents to understand and help meet their child's needs; it provides the professionals with information and insight into the child and family dynamics; and most important, it helps the child. Also, parent contacts can provide insight into cultural background, perhaps reducing the possibility of biased decision making related to cultural differences.

These suggestions can apply to any professional in the IEP planning meeting. The school psychologist may be the individual most likely to assume the lead in involving parents in the educational planning process. It should not be assumed that competence for this task comes naturally.

FOR FURTHER REFERENCE

Due Process and the Exceptional Child: A Guide for Parents. Educational Law Center, Inc.: Philadelphia, Pennsylvania, 1976. $2.00.

Know Your Rights! Closer Look: Washington, D.C. Free.

Commentary With Parents of Exceptional Children: Improving Parent-Teacher Relationships. Roger L. Kroth, 1975. Love Publishing Co., Denver, Colorado, $3.95.

Parent Conferences as a Teaching Strategy. Richard Simpson and Roger Kroth, 1977. Love Publishing Co., Denver, Colorado, $4.50.

EDUCATIONAL INTERVENTION PHASE

Working With and From Measurable Goals and Objectives in Evaluating Student Progress

SHOW TRANSPARENCY 108 (T-108)

As the appraisal process progresses from identification of a student to implementation of a program the role of the school psychologist tends to diminish. School psychologists are usually heavily involved in identification, assessment and eligibility decisions and less involved in educational planning and placement decisions. They typically have little or no role in implementation except as a consultant for social-emotional or other problems. However, to participate effectively in the process psychologists need to understand the implications of their earlier work. They need to understand how programs will be implemented to meet the needs which they helped to identify.

Once a student has been identified as exceptional and in need of special education, an individual education plan (IEP) must be developed. The plan must contain goals and objectives for the student's learning, and progress toward these objectives must be measurable. The IEP should not be a simple reference document which refers the reader to various curricula. The reader should be able to develop a clear understanding of what the child's planned program is to be from the IEP alone.

Annual goals are written statements of what the student is expected to learn in his or her educational program. They represent broad targets for the student's learning program and the expected educational growth which may take place over the academic year. These annual goals should be general in scope, yet specific enough to focus instruction in the appropriate curricular areas.

In order to write annual goals, it is necessary to first determine the student's present level of functioning in the appropriate instructional area, and then determine the content and skills which should be emphasized in a future program.

Annual goals should be independent of specific grade levels and curriculum materials. They should address anticipated learning and should not focus on projected gain scores (e.g., increase in developmental age) or movement within a specific curriculum (e.g., completing books 2, 3, 4 in a specific reading series).

Each annual goal should reflect anticipated learning of more than one behavior within an instructional area, except for goals on the IEP's of very low functioning students.

Each goal should also be more than merely a general statement about the curriculum content area. "Displays increased ability in math" is not recommended as an annual goal. Goals must reflect anticipated growth within the sub-categories of instructional areas. "The student will improve his skills in multiplication" is appropriate because it focuses on expected learning in a sub-category of math.

In writing annual goals, planners should be careful to make projections reasonable so as not to discourage or frustrate the student. A reasonable rule of thumb is for the planner to write goals which have an 80 percent probability of being accomplished. On the other hand, projections should be broad enough to allow for the possibility that the student will make unexpected gains or enhance expected ones.

SHOW TRANSPARENCY 109 (T-109)

Short-term objectives are derived from the annual goals in each instructional area. They represent smaller, more manageable learning tasks that a student must master on the way to achieving the more general and complex annual goals. They enable the teacher and others to plot the student's progress toward meeting the annual goal. Annual goals represent broad changes in a child's knowledge or skills, while short-term objectives represent specific units of learning. While annual goals may take up to a year or more to achieve, short-term objectives should be mastered in a relatively shorter time. Monitoring achievement of these objectives allows us to determine whether progress is being made toward achieving the annual goal. Planners may specify a few or many short-term objectives for each annual goal, and they may range from the very specific to the more general, depending on the student's needs. For many annual goals, a few short-term objectives are sufficient. However, in cases where more learning steps are required by the student, a greater number of short term objectives may be necessary.

The sequence of short-term objectives should be logical. Many objectives are dependent on achieving prerequisite skills that should be taught earlier in the order of instruction. When an ordered sequence of instruction is necessary, the short-term objectives should be stated in appropriate order.

A well-written objective will clearly state what the student will be able to do as a result of instruction; it is best stated in behavioral terms. Using action verbs (e.g., to recite, to define, to list), allows the behavior to be specified in observable, measurable terms so that a teacher or other observer will be able to accurately record the occurrence of the behavior. Hitting another child and crying are examples of observable behaviors.

A second critical element of a properly written objective is a statement of the condition under which the observable behavior will occur. If the objective is: "In response to the teacher's verbal request, John will shut the door" then "in response to the teacher's request" is the condition under which the observable behavior will occur. Without this condition the reader does not understand that a prompt is necessary.

The IEP must also include a statement of the criteria for acceptable performance, evaluation procedures, and schedules for determining whether the instructional objectives are being met. The criterion for acceptable performance on an objective describes how well the student must perform the specified task in order to demonstrate mastery of that task.

This specification of a criterion for acceptable performance is the third critical element of a well-written objective, and is the key to measuring whether an objective has been achieved. We might add to the objective described above "In response to the teacher's request, John will shut the door on four out of five trials."

The evaluation procedures for determining achievement of short-term objectives must be adequately described. This should include enough detail to enable other professionals to construct and administer the same evaluation measure to determine whether the objective has been achieved.

A behavioral objective that describes an observable action, the conditions under which the action will occur, and the criterion for successful completion is in fact a test in itself. If the teacher wishes to test progress on the objective, he or she need only observe the child under the conditions described in the objective to determine whether the student can perform the activity to the criterion level specified. Such a test is an exact measurement of the objective. In turn, success on objectives is a means to determine progress toward the annual goal.

To formulate behavioral objectives without testing performance relative to the objectives would be a useless academic exercise.

SHOW TRANSPARENCY 110 (T-110)

Measuring whether an objective has been achieved can be done in a number of ways including frequency recording, recording of duration of behavior and qualitative data recording. Frequency data recording is little more than a tally system. When the frequency of response is in line with the target behavior in terms of number of consecutive correct responses or in terms of a desired percentage of correct responses, criterion is reached.

Duration measurements are most useful when the teacher is interested in how long a behavior is lasting or how long it has been since a behavior occurred. Evaluation can also occur using qualitative information. This might involve the "grading" of a response perhaps on a scale of 0-4, A-D, or any other continuum that is comfortable to the teacher. Since this evaluation is more subjective, it is important that judgments be verified by other professionals if possible. Selection of the data collection procedure should depend on the behavior to be observed and the use that will be made of the measurement data.

Goals and objectives will have little value if they do not relate to the instructional process. The selection of goals and objectives for a student are based on the expectations that the IEP writer has for a child. Such goals and objectives are typically based on assessment of the child's needs and related to a curricular structure in the school. In implementing planned goals and objectives the teacher will select information from existing curricula and materials to teach the student where possible. Many materials list goals and objectives that can be used in the student's IEP. In other cases the teacher will need to invent both objectives and materials for teaching the objectives.

One approach to instruction on behavioral objectives is a test-teach-test method. Spending time teaching toward an objective that a pupil can achieve prior to instruction can be avoided by proper pre-testing. Post-testing can indicate whether a mastery level has been reached and can be used to identify areas that need further instruction. If the objective has been mastered, the teacher moves on to the next objective, returning sometime later to retest the original objective to insure that the skill or information has been maintained over time.

ASK FOR QUESTIONS

Tell the participants it is time for the next activity.

ACTIVITY
IDENTIFYING PARTS OF SHORT-TERM OBJECTIVES

Activity Directions for Trainer:

1. Tell participants to turn to worksheets 78 and 79. Direct participants to read and follow directions.
2. Discuss answers to worksheet-Activity 13. (Answer guide is provided for trainer).
3. Tell participants to turn to worksheet 80. Direct participants to read and follow directions.

4. Discuss answers to worksheet. (Answer guide is provided for trainer following these directions).

10 minutes	Individual work (WS-A)
5 minutes	Individual work (WS-B)
10 minutes	Group Discussion
25 minutes	Estimated Time

Answer Guide—Worksheets 78 & 79

Identifying parts of Short-term Objectives

Identifying terminal behavior statements.

Underline the observable terminal behavior in each of the objectives. Remember to underline the entire action phrase.

1. Using only one hand, learner will bounce a basketball for 10 seconds without losing control of the ball.
2. In 10 consecutive trials, student can tie his own shoelaces in a bow without assistance 80% of the time.
3. Learner uses toilet without assistance for one week.
4. Given a thread and an average-size needle, learner can thread needle within 20 seconds.
5. Given a large-mouthed glass and a half-pint carton of milk, learner pours milk into glass without spilling.

Identifying condition statements.

Double underline the conditions in each instructional objective.

1. When asked, learner can hop on one foot five consecutive times.
2. Learner can stand erect for one minute without losing balance.
3. Given a visual model, learner can print his name correctly on a sheet of paper without missing or reversing any letter.
4. Learner can catch a 10-inch ball when it is tossed from a distance of 10 feet in three out of four trials.
5. During one week without being reminded, student says "thank you" when given the morning snack at least four out of five times.

Identifying criterion statements.

Place parentheses around the criterion in each instructional objective.

1. When asked to put on his coat, the learner will do so (within 30 seconds).
2. (In six out of eight trials) learner can dial his number on a telephone.
3. The student will read (at grade level) by the end of the school year (as judged by the Wide Range Achievement Test).
4. Learner is (successful each time) he buttons his coat.
5. Student can wash lunch plates (clean enough so that plates do not need to be rewashed).

Identifying all parts of a written objective.

Underline the terminal behavior. Double underline the condition. Put parentheses around the criterion in each instructional objective.

1. The child will set a place setting (correctly) when presented with a napkin, glass, place, knife, fork and spoon (100% of the time).
2. When descending or ascending the stairs, the child will walk to the right side and place his right hand on the railing (100% of the time).
3. When a child is called by an adult to come (i.e., "__________________, come here."), the child will go to the adult requesting his presence (within one minute of the initial request for nine out of ten trials).

Answer Guide—Worksheet 80

Identifying Parts of Short-Term Objectives

Underline the terminal behavior. Double underline the condition. Put parentheses around the criterion. If part is incomplete or missing, rewrite the objective to include the part.

1. Given 50 multiplication problems in the form (a × b = c), Dan will write the answers (within 10 minutes with 90% accuracy).

2. After completing a unit on Afro-American culture, Carla will match six African tribes with the region from which they came.
   criterion missing
3. George will shoot (seven out of 10) baskets.
   condition missing
4. Given a scale, a set of gram weights, a data sheet and five different objects, the student will weigh each object.
   criterion missing
5. Given an application blank, Sue Ellen will fill out all parts of the form (correctly).
6. Keith will be able to take the bus from his home to his work-study situation (each weekday for one week).
   condition missing

FOR FURTHER REFERENCE

Individualized Education Program Plans in Pennsylvania: Guidelines for School Age IEP Development, The National Learning Resource Center of Pennsylvania. Available from: PENN STAR, Union Deposit Mall, Harrisburg, PA.

Mager, Robert, How to Write Behavioral Objectives, 1962.

Broadening the Base of Program Options Perceived by School Personnel

Earlier, in the planning phase, the need for school psychologists to know what exists in their communities in terms of placement options and be open to possible accommodations and creative suggestions was mentioned and detailed. This section will deal with the implementation of suggested accommodations and with the way in which school psychologists can function as consultants to the teacher and other professionals to see that children's identified needs are in fact being met.

We know that children have individual learning styles. Some learn by doing, others by observing; some learn best when left alone, others when operating within a group.

Children also have individual learning rates, and the same child has different learning rates for different subject matter. Existing predetermined curricula cannot accommodate the unique characteristics and styles of all students. Special education programs have no benefit over regular education programs unless the former are designed to meet the student's individual needs. In attempting to individualize instruction, personnel must consider the following:

SHOW TRANSPARENCY 111 (T-111)

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1. *Achievement Level:* not all nine-year-olds can read the same material, spell the same words, do the same work, etc.
2. *Input Modalities:* some students may learn best through a visual modality; others through an auditory modality, etc.
3. *Output Modalities:* some children express themselves best orally; others in writing or by drawing, etc.
4. *Grouping Needs:* some students work best alone and others in groups.
5. *Variety Needs:* some children require lots of variety or novelty in activities; others require time to explore one activity fully before moving on to a new one.
6. *Motivational Needs:* some children require tangible rewards as reinforcement while others find assignments intrinsically rewarding. Some may feel rewarded by praise or teacher approval; others may not.
7. *Practice Needs:* some students need practice concentrated in large blocks of time; others need practice spread out over shorter periods of time.
8. *Cognitive Level:* knowledge questions may be a challenge to some children; others may need questions requiring comprehension, application, analysis, synthesis or evaluation.

SHOW TRANSPARENCY 112 (T-112)

In addition to helping individualize instruction, school psychologists, in their capacity as consultants, need to consider and help implement certain adaptive strategies in the recommended placement which will further enhance students' learning. For example, *peer tutoring* might be employed. Other students might be able to teach the handicapped child, using the teacher's lesson plan. *Programmed instruction* can be utilized as well as individual learning packets. With these, students learn at their own rate or level independently. Neither of these should be substituted for teacher instruction, however. *Teaching machines*, such as a language master, may be used to facilitate learning for certain students. Providing areas in the classroom for *small-group or independent work* such as *learning centers* or study booths allows students to work on subjects of particular interest. Another possibility is to provide areas with shelves or drawers containing specific materials placed in a developmental sequence and coded. Use of this area may be student- or teacher-directed. Having students *perform classroom jobs that reinforce skill deficits*, such as alphabetizing attendance cards or placing workbooks in stacks of ten, is another technique in implementing accommodations. *Team teaching* and involving parents in the educational process are also useful. Another technique is *charting individual progress*—e.g., graphically showing the number of words that a student gets correct from day to day. This reinforces both student and teacher because both see that they are having success in the work that they are doing. The technique of allowing for various grading systems based on homework, tests, class discussions, and special projects can aid in implementing adaptive strategies. The teacher or other professional can vary methods of grouping students for instruction or independent study by academic level or needs, learning styles, student interests, patterns of social interactions among students or work habits of students. Finally, another good technique for implementing adaptive strategies is to utilize professionals and paraprofessionals in many capacities. Perhaps the professionals can operate as managers or planners while paraprofessionals (aides, parents) function as implementers of written plans.

There are unlimited adaptations that can be made within the prescribed placement if professionals continue to focus on the individual student's needs, are aware of available tools and programs, and are willing to be creative and flexible. Often the combined efforts (again, the repeated theme of a team approach) of teacher and consultant will result in the maximum benefit to the child.

FOR FURTHER REFERENCE

Volkner, C.B., Langstaff, A.L. & Higgins, M. *Structuring the Classroom for Success*, Columbus, Ohio: Charles E. Merrill Co., 1974.

Wallace, G. and Kaufman, J. *Teaching Children With Learning Problems*. Columbus, Ohio: Charles E. Merrill Co., 1973.

Understanding the Concept of Least Restrictive Environment

SHOW TRANSPARENCY 113 (T-113)

School psychologists, as participants on the IEP planning team, will find themselves faced by a dilemma encountered by many educators today. P.L. 94-142 specifies that placements must be made in the least restrictive environment (LRE) but provides little direction as to how one may accomplish this goal. This section offers an operational definition of LRE and the means to document decisions about it.

Every handicapped child is entitled to a free, appropriate public education. In addition, each public agency shall insure that to the maximum extent appropriate, handicapped children, including children in public and private institutions or other facilities, are educated with children who are not handicapped. Special classes, separate schooling, or other removal of handicapped children from the regular educational environment should occur only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. This mandate is the federal definition of the concept of least restrictive environment.

Placement in the least restrictive environment (LRE) must be implemented within the context of providing appropriate programming for handicapped students. Two dimensions must be considered when looking at potential placement options. First, some environments may be inappropriate because they fail to meet a student's learning needs. Second, other environments may be restrictive because they limit a student's access to non-handicapped students. To insure that these considerations can be integrated in making an appropriate placement, the following operational definition has been developed:

Point to #2, Transparency 113 (T-113)

The least restrictive environment for a student is the placement that realizes a match between the learning needs of the student and the conditions of the educational environment, while providing the student with appropriate integration with non-handicapped students. To make placement decisions using this definition of LRE, educators will need to have information both about the learning environment that a student needs and about the learning environment that each possible placement option provides.

The first type of information needed about a student is a description of student curriculum needs. The special education curriculum determined to be appropriate for a student is represented in the IEP by the annual goal statements and by the short-term objectives derived from these annual goals in each instructional area.

SHOW TRANSPARENCY 114 (T-114)

A second factor which must be considered in finding the LRE is the provision of related services. Related services are defined as "transportation and such developmental, corrective and other supportive services as are required to assist a handicapped child to benefit from special education." This information is also contained in the IEP.

Finally, information about a student's needs for special instructional media and materials is necessary to enable the educator to make a placement decision. Special media and materials are those that are not routinely available in the special education classroom. Examples include opticons for visually impaired students and the Bliss Communication System for severely and profoundly handicapped students.

SHOW TRANSPARENCY 115 (T-115)

Other student factors should also be considered in determining placement options. Some of these are learning-style, social/psychological characteristics, and physical limitations. A particular learning style may create needs that must be met through accommodations in the learning environment. Social/psychological characteristics, or the way a student interacts with peers and teachers, may also require such accommodations. Finally, exceptional students with physical impairments may require special adaptations to allow for access and mobility.

SHOW TRANSPARENCY 116 (T-116)
REFER TO WORKSHEET 83

The various optional placements must also be examined to determine the curriculum, related services, and instructional media and materials that are available as well as appropriateness to different learning styles, social/psychological characteristics, and physical traits. This transparency and your worksheet provide a form which will help in documenting the characteristics of placement options. For example, each placement option will offer a curriculum that contains one or more content areas. The content will be geared toward a range of student ability levels. It is often possible for curriculum to be modified to accommodate students whose needs fall slightly outside this range. Therefore, placement option information should include knowledge of the curriculum that is available and ways in which modifications could be made. Each placement option can offer certain related services. Placement option information should include related services that are available and the conditions for service delivery, including scheduling and educational setting.

Certain media and materials will be accessible in each option. Placement option information should include knowledge of the media and instructional materials that can be delivered to meet a student's needs.

As previously stated, each student learns in his or her own unique way. Placement option information should include knowledge of the adaptations that could be made in the learning environment to meet a student's unique needs.

Each option will also have a teacher/student composition that will result in a particular social/psychological climate. Placement option information should include knowledge of these characteristics. For example, some students will perform best in an authoritarian environment, while others will do better in a more democratic environment.

Placement option information should include data about the physical characteristics of a particular facility, vehicles used to service that facility, and the extent to which they could be modified to meet student needs. Buses with lifts, lowered drinking fountains, buildings with ramps, and side railings in hallways are examples of architectural or design modifications that may be necessary to provide a barrier-free environment to a student.

In addition to data about the appropriateness of the placement option, educators also need information related to the degree of integration with non-handicapped students that each possible placement option affords. This can be referred to as the restrictiveness of the placement option. Opportunities for integration with non-handicapped students can occur in either academic and non-academic settings or both. The student may actively engage in learning activities with regular education students, or participate in non-academic activities such as meals, recess, transportation, athletic events, recreational activities, etc., or both.

Some placement options may not provide opportunities for integration with non-handicapped students. However, these options may be in close proximity to regular education classes and thus provide an educational environment that will allow for the possibility of interaction among students.

Federal regulations require that a student's placement be geographically as close as possible to his home. Unless implementation of the IEP requires some other arrangement, the student must be educated in the school he would attend if he were not handicapped. Therefore, placement option information should include knowledge of each location in order to enable educators to make appropriate placement decisions.

Using the information described above, a suggested system for LRE decision making has been proposed by the National Learning Resource Center of Pennsylvania. It is presented as one possible approach toward decision making. In this system, the two-dimensional operational definition of LRE described earlier provides a beginning framework. Each option should first be assessed to determine if it meets the learning needs of the student, as stated in the IEP either with or without adaptation. Each option that *does* meet this criterion is then assessed to determine which provides the greatest access to regular education students.

The flow chart shown here illustrates the process that should be applied to each option being considered as a placement for a handicapped student.

SHOW TRANSPARENCY 117 (T-117)

Other tools may be needed to help implement the LRE decision making process.

SHOW TRANSPARENCY 118 (T-118)
REFER TO WORKSHEET W-84

One such tool is a decision summary checklist. This chart lists each placement option down the side of the paper and then lists learning needs (curriculum, related services, media and materials and any others pertinent to the student) next to the options. For each applicable learning need, the placement indicates the ability or inability of the option to meet the student's needs.

Next to learning needs is the heading "Education with Non-handicapped Students." Under this the team indicates the amount of time the student will spend with non-handicapped students in both academic and non-academic settings. Also under this heading is a box indicating proximity to the home; the distance to the placement option from the child's home is recorded here. The recommended assignment is recorded at the bottom of the chart, and the data on how this decision was reached is available at a glance. P.L. 94-142 requires documentation of the issues weighed in selecting a placement option.

The flow chart and decision summary checklist described provide a systematic approach to reviewing all the informatin about a student's needs and the alternatives in meeting those needs. They represent only one approach, and other systems might be more appropriate in some situations. The important issue is that we use some system that truly integrates the needs of the student with realistic placement options.

ASK FOR ANY QUESTIONS

Tell participants it is time for the next activity.

ACTIVITY

SIMULATION—"ROSALIE"

This activity (Rosalie) is a realistic simulation of the LRE decision making process. In this activity the participants work in groups of three or four, each group representing an IEP Planning Team. Participants receive information about the student (a summary of Rosalie's IEP) and possible placement options on an Information Sheet. The group considers student and placement option information and a member of the group records the considerations on a documentation form entitled "Decision Summary Checklist" (Worksheet 84).

TRAINER DIRECTIONS: "ROSALIE"

A. Establish working groups of 3-4 persons.

B. Describe Rosalie
  1. She is 10 years old.
  2. She is physically handicapped and is delayed in development.

C. Summarize Rosalie's IEP, which is included in the worksheet information, by reviewing:
  1. Her present education levels.
  2. Her annual goals.
  3. The related services being recommended for Rosalie.

D. Refer participants to the "Decisions" *Information Sheets* for Rosalie. (Worksheets 85-92)
  Explain that:
  1. Rosalie's IEP has been summarized on the left side of Worksheet 85.
  2. The two options being considered for Rosalie are described on the right side of the sheet.

E. Give directions for Simulation Activity.
  1. Direct the group to consider which of Rosalie's learning needs can be met in each option.
  2. Inform the group that they should record these considerations on a documentation form *(The Decision Summary Checklist)* (Worksheet 84).
  3. Show Transparency 119. (T-119)
  4. Review the headings on the form.
    a. Instruct group to
      —fill in student's name
      —fill in the placement options that are being considered (TMR Class, Elementary School, IU, MH Class in Special Facility)
      —fill in additional columns for "Learning Needs" (Learning Style and Physical Environment)

—review the legend. A check mark beside a placement option indicates that the learning need can be met in that option; a minus sign indicates that the learning need cannot be met.

b. Instruct the group to estimate a *percentage* of the time for academic or non-academic integration and to indicate the proximity to home *in minutes* of travel time.

F. Give participants 10-15 minutes to arrive at a decision in their respective groups. Answer any questions that may arise during that time.

G. Ask for a volunteer group to share its recommendation for placement and documentation while you record the information on the transparency of *Decision Summary Checklist.*

H. Ask other groups to share their recommendations.
  1. When a minus sign is recorded in a column, ask the group whether the placement option could be adapted to provide the missing element.
  2. Discuss the effects that additional information about the student placement option or the parents' preference might have on the decision.

FOR FURTHER REFERENCE

Placing Handicapped Students in the Least Restrictive Environment: A Model for Decision-Makers. The National Learning Resource Center of Pennsylvania. Available from: Penn Star, Union Deposit Mall, Harrisburg, Pennsylvania.

ASK FOR ANY CLOSING QUESTIONS

TRANSPARENCY MASTERS

THE APPRAISAL PROCESS

PRE-REFERRAL PHASE

REFERRAL/SCREENING PHASE

PRE-ASSESSMENT PHASE

COMPREHENSIVE INDIVIDUAL ASSESSMENT PHASE

ASSESSMENT REPORT PHASE

EDUCATIONAL PLANNING PHASE

EDUCATIONAL INTERVENTION PHASE

PRE-REFERRAL PHASE

A. DEFINING THE PROBLEM

B. COLLECTING ANECDOTAL DATA ON REFERRAL PROBLEMS

C. DISCRIMINATING UNIQUE PROBLEMS FROM NORMAL FLUCTUATIONS IN DEVELOPMENT

REFERRAL/SCREENING PHASE

A. GENERATING CLASSROOM ALTERNATIVES FOR IDENTIFIED PROBLEMS

B. EVALUATING RESOURCES TO ASSIST IN REFERRAL PROBLEM SOLVING

C. SCREENING REFERRALS FOR SIGNIFICANT PROBLEMS

D. DESIGNATING OTHER EDUCATIONAL ALTERNATIVES

E. OPERATIONALIZING A GOOD REFERRAL FOR ASSESSMENT

PRE-ASSESSMENT PHASE

A. DEVELOPING KEY ASSESSMENT QUESTIONS

B. DETERMINING THE MULTIDISCIPLINARY TEAM NEEDED FOR COMPREHENSIVE ASSESSMENT

C. RECOGNIZING THE EFFECTS OF DECISION MAKING BASED ON TRADITIONAL TESTS

COMPREHENSIVE INDIVIDUAL ASSESSMENT PHASE

A. BUILDING A COMPREHENSIVE PICTURE OF THE CHILD
   1. ADDRESSING MEASURABLE ASPECTS OF ELIGIBILITY FOR SPECIAL PROGRAMS
   2. SPECIFYING EDUCATIONAL NEED IN TERMS OF "ADVERSE EFFECTS"
   3. INSURING SPECIFICATION OF PRECISE EDUCATIONAL COMPETENCIES

B. BASIC CONCEPTS IN DEVELOPMENTAL ASSESSMENT

C. PERSPECTIVES ON PHYSICAL, MOTOR, COGNITIVE, AND LANGUAGE DEVELOPMENT

D. SPECIAL CONSIDERATIONS FOR PRESCHOOL AND INFANTS

E. SPECIAL CONSIDERATIONS FOR ASSESSING CHARACTERISTICS OF:
   1. DEAF/BLIND
   2. CEREBRAL PALSIED
   3. ORTHOPEDICALLY HANDICAPPED
   4. SEVERELY MULTIPLY HANDICAPPED

ASSESSMENT REPORT PHASE

A. INTEGRATING ALL AVAILABLE DATA INTO A COMPREHENSIVE REPORT

B. DETERMINING WHEN A REPORT IS JARGON-FREE AND UNDERSTANDABLE TO PARENTS

EDUCATIONAL PLANNING PHASE

A. CONSIDERING EDUCATIONAL NEED AND "ADVERSE EFFECTS" AS PART OF THE ELIGIBILITY DECISION

B. RELATING AS A TEAM MEMBER IN THE DECISION-MAKING PROCESS

C. DETERMINING MOST APPROPRIATE PLACEMENT, IF ANY, FOR INTERVENTION

D. RECOGNIZING VARIOUS FORMS OF BIAS IN THE EDUCATIONAL PLANNING PROCESS

E. INCORPORATING PARENTS AS INTEGRAL MEMBERS OF THE EDUCATIONAL PLANNING TEAM

EDUCATIONAL INTERVENTION PHASE

A. WORKING WITH AND FROM MEASURABLE GOALS AND OBJECTIVES

B. BROADENING THE BASE OF PROGRAM OPTIONS PERCEIVED BY THE SCHOOL PERSONNEL

C. UNDERSTANDING THE CONCEPT OF LEAST RESTRICTIVE ENVIRONMENT

D. EVALUATING STUDENT PROGRESS IN TERMS OF GOALS AND OBJECTIVES

T-9

WHY STUDENTS FAIL

INDIVIDUAL CHARACTERISTICS

PHYSICAL, MENTAL, OR EMOTIONAL HANDICAP

FREQUENT MOVES

POOR MOTIVATION

SLOW LEARNER

POOR VISION/HEARING ACUITY

MINORITY GROUP MEMBERSHIP

LOW SOCIOECONOMIC STATUS

SCHOOL SYSTEM CHARACTERISTICS

TEACHING STYLE (AUTHORITARIAN; UNSTRUCTURED)

TASK DEMANDS ABOVE INSTRUCTIONAL LEVEL OF CLASS

LACK OF BEHAVIORAL CONTROL

PERSONALITY CONFLICT (TEACHER/STUDENT)

TEACHER EXPECTATIONS FOR STUDENT

CLASSROOM ENVIRONMENT (CROWDED-NOISE-TEMPERATURE-LIGHT-DISTRACTIONS)

POOR TEACHING

NONBIASED ASSESSMENT MODULE

BASIC CONSIDERATIONS

LEGAL PRINCIPLES

SOCIOCULTURAL CONSIDERATIONS

UNDERSTANDING LANGUAGE CHARACTERISTICS

NONBIASED EDUCATIONAL ASSESSMENT

NONBIASED ASSESSMENT OF MILDLY RETARDED STUDENTS

NONBIASED ASSESSMENT OF EMOTIONALLY DISTURBED STUDENTS

NON-TEST-BASED ASSESSMENT MODULE

INTERVIEW-BASED ASSESSMENT

OBSERVATION-BASED ASSESSMENT

CURRICULUM-BASED ASSESSMENT

PRE-REFERRAL PHASE

STEPS

1. DEFINING REFERRAL PROBLEMS
2. MEASURING REFERRAL PROBLEMS
3. DISCRIMINATING UNIQUE PROBLEMS FROM NORMAL DEVELOPMENT

DEFINING REFERRAL PROBLEMS

A CLASSROOM TEACHER CAN —

1. NOTE STUDENT HAVING BEHAVIORAL PROBLEM(S)
2. STATE PROBLEM(S) IN A SPECIFIC WAY
3. USE BEHAVIOR OBSERVATION TECHNIQUES
4. USE BEHAVIOR CHECKLISTS
5. ASK OTHER SCHOOL PERSONNEL TO HELP VERIFY THE STATED PROBLEM(S)
6. DETERMINE SIGNIFICANCE OF PROBLEM(S)
7. PINPOINT STUDENT STRENGTHS AND WEAKNESSES FOR REFERRAL

MEASURING REFERRAL PROBLEMS

TWO CHARACTERISTICS IMPORTANT TO TEACHER—

1. PRACTICAL
2. REASONABLY SPECIFIC AND ACCURATE

TWO TYPES OF MEASUREMENT—

1. MEASUREMENT OF LASTING PRODUCTS
2. DIRECT BEHAVIORAL OBSERVATION

SOME ACADEMIC PRODUCTS

- % OF READING COMPREHENSION QUESTIONS ANSWERED CORRECTLY
- % OF WORDS MISSPELLED
- % OF LETTERS REVERSED ON A WRITTEN ASSIGNMENT
- % OF ADDITION PROBLEMS INCORRECT BECAUSE OF FAILURE TO "CARRY"
- % OF SUBTRACTION PROBLEMS INCORRECT BECAUSE OF FAILURE TO "BORROW"
- % OF ASSIGNMENTS COMPLETED PER DAY (OR PER WEEK)

MEASUREMENT PROCEDURES FOR OBSERVATION

1. CONTINUOUS RECORDING
2. TIME SAMPLING
    a. FREQUENCY RECORDING
    b. INTERVAL RECORDING
    c. DURATION RECORDING

DETERMINING THE SIGNIFICANCE OF THE PROBLEM BEHAVIOR

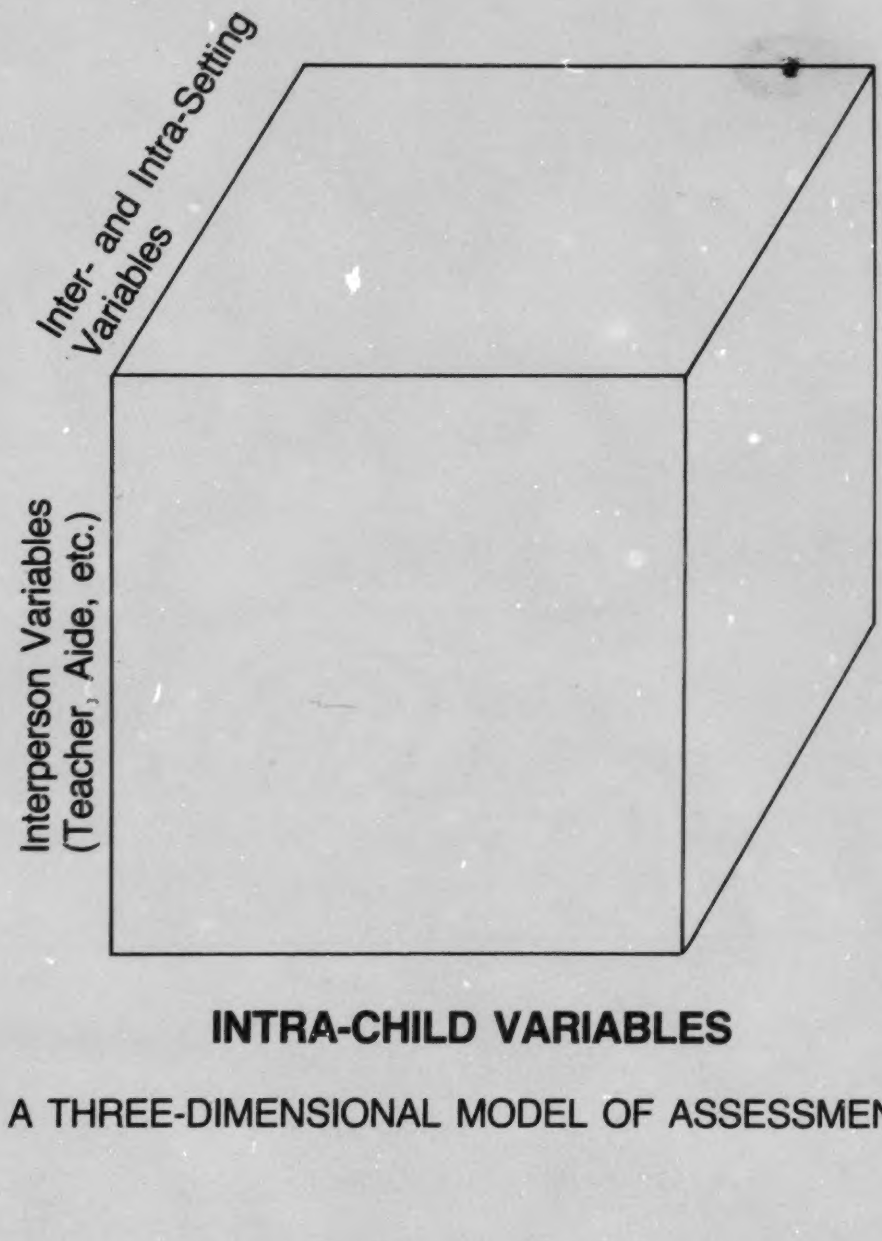
1. DETERMINE THE DEGREE TO WHICH THE STUDENT'S BEHAVIOR DIFFERS FROM THE CLASS AVERAGE
2. OBSERVE ONE OR TWO OTHER STUDENTS AND COMPARE THEIR BEHAVIOR WITH TARGET CHILD. (BE SURE TO MATCH ETHNICITY AND SEX OF CONTROL CHILD TO TARGET CHILD)
3. EXERCISE CAUTION REGARDING REFERRAL BIAS AND SOCIAL VALUES

TEACHER'S PERCEPTION

		Non-Deviant	Deviant
TRUE STATUS	Non-Deviant	True Negative A	False Positive B
	Deviant	False Negative C	True Positive D

PROSPECTIVE VALIDITY FOR REFERRAL

1. TEACHER'S PAST "TRACK RECORD"
2. INTER-TEACHER PERCEPTIONS
3. INTER-INDIVIDUAL COMPARISONS
4. INTRA- AND INTER-SETTING COMPARISONS
5. CROSS-CULTURE COMPARISONS
6. MEDICAL AND DEVELOPMENTAL HISTORIES
7. EXISTING TEST DATA


Inter- and Intra-Setting Variables
Interperson Variables (Teacher, Aide, etc.)

INTRA-CHILD VARIABLES

A THREE-DIMENSIONAL MODEL OF ASSESSMENT

REFERRAL/SCREENING PHASE
(A 5-PART PROCESS)

1. GENERATE CLASSROOM ALTERNATIVES
2. EVALUATE REFERRAL RESOURCES
3. SCREEN FOR SIGNIFICANT PROBLEMS
4. DESIGNATE OTHER EDUCATIONAL ALTERNATIVES
5. OPERATIONALIZE A GOOD REFERRAL FOR ASSESSMENT

POSSIBLE HIGH RISK STUDENTS

1. SCORE AT 25TH PERCENTILE OR BELOW ON GROUP ABILITY TESTS
2. MAKE ONE OR MORE ZEROS OR FAILING GRADES ON REPORT CARDS
3. SCORE BELOW 25TH PDRCENTILE ON STANDARDIZED ACHIEVEMENT TESTS
4. EXHIBIT INCONSISTENT AND/OR UNACCEPTABLE BEHAVIOR FOR THEIR AGE/PEER GROUP
5. STRIVE TO ACHIEVE ACADEMIC SUCCESS NO MATTER WHAT THE COST
6. SEEM UNABLE TO ACCEPT FAILURE
7. ARE WITHDRAWN AND HAVE LITTLE INTERACTION WITH PEERS

SOME PRINCIPLES OF SCREENING

1. SYSTEMATIC ANALYSIS OF CLASSWORK AND/OR OBSERVATION CAN HELP DETERMINE A DISCREPANCY
2. WITH AN UNDERSTANDING OF THE REFERRAL/SCREENING PROCESS, THE CLASSROOM TEACHER CAN BETTER IDENTIFY HIGH RISK STUDENTS
3. THE CLASSROOM TEACHER IS THE PRIMARY RESOURCE FOR SPECIFYING STUDENTS' STRENGTHS AND WEAKNESSES
4. SYSTEMATIC OBSERVATION TECHNIQUES AID SCREENING
5. EFFECTIVE COMMUNICATION IS ESSENTIAL
6. STUDENT BEHAVIORS MAY VARY WITH DIFFERENT TEACHERS, AND COOPERATION IS ESSENTIAL

CLASSROOM ALTERNATIVES TO TRY *PRIOR* TO REFERRAL—

1. SHORTER ASSIGNMENTS
2. LONGER ASSIGNMENTS
3. MORE FREQUENT GRADING
4. DIFFERENT INSTRUCTIONAL MATERIAL
5. DROPPING BACK IN THE CURRICULUM TO A POINT WHERE THE STUDENT CAN ACHIEVE
6. CHANGING STUDENT'S SEATING
7. CHANGING CLASSROOM STRUCTURE
8. IMPLEMENTING A REWARD SYSTEM FOR COMPLETED WORK AND APPROPRIATE BEHAVIOR

SCREENING/REFERRAL RESOURCES

1. REFERRAL, SCREENING AND ASSESSMENT COORDINATOR
2. SCHOOL PSYCHOLOGIST
3. EDUCATIONAL SPECIALIST/DIAGNOSTICIAN
4. SCHOOL NURSE
5. SPEECH AND LANGUAGE THERAPIST
6. SCHOOL COUNSELOR/SOCIAL WORKER
7. PARENTS
8. CLASSROOM TEACHERS
9. LOW INCIDENCE SCREENING AND ASSESSMENT PROFESSIONALS (e.g., ORIENTATION AND MOBILITY SPECIALISTS)

MINIMAL DATA TO COLLECT FOR SCREENING:

1. VISION/HEARING SCREENING RESULTS
2. CHILD'S EDUCATIONAL HISTORY (INCLUDING GRADES AND TEST SCORES)
3. TEACHER OBSERVATIONS
4. LANGUAGE SKILLS RATED BY TEACHER
5. SPEECH SCREENING
6. HEALTH/MEDICAL HISTORY
7. STRATEGIES TRIED BY TEACHER TO ASSIST STUDENT AND OUTCOMES
8. WORK SAMPLES
9. SOCIO-CULTURAL/FAMILY HISTORY

OTHER:

OTHER EDUCATIONAL ALTERNATIVES (PRIOR TO SPECIAL EDUCATION ASSESSMENT)

1. BILINGUAL EDUCATION
2. TITLE I PROGRAMS
3. REMEDIAL MATH CLASSES
4. COMPENSATORY EDUCATION PROGRAMS
5. CHANGE OF SCHOOLS
6. CHANGE OF TEACHERS
7. SUPPORT SERVICES (e.g., SCHOOL PSYCHOLOGIST)

IF NONE OF THESE ALTERNATIVES ARE APPROPRIATE THEN—SPECIAL EDUCATION REFERRAL CAN FOLLOW

OPERATIONALIZING A GOOD REFERRAL

1. ALL REGULAR EDUCATION RESOURCES HAVE BEEN EXHAUSTED
2. ASK: "DO WE SUSPECT THAT THIS CHILD..."
   a) IS HANDICAPPED? AND
   b) IS IN NEED OF SPECIAL EDUCATION SERVICES?
3. COLLECT AND ATTACH ALL DATA TO THE DISTRICT REFERRAL FORM
4. TRACKING SYSTEM FOR MONITORING REFERRAL IS ESTABLISHED
5. PARENT PERMISSION OBTAINED

ASSESSMENT QUESTION

A QUESTION DEVELOPED THROUGH THE PROCESS OF INTERVIEWING TO BE ANSWERED DURING THE ASSESSMENT PROCESS BY INTERVIEWS, OBSERVATIONS, INFORMAL AND FORMAL ASSESSMENT

FACTORS TO RULE OUT FIRST

1. POOR VISION/HEARING ACUITY
2. TASK DEMANDS ARE AT THE STUDENT'S INSTRUCTIONAL LEVEL

PRE-ASSESSMENT CONFERENCE

ASSESSMENT QUESTION: "ARE THE READING ASSIGNMENTS GIVEN TO JOHNNY AT HIS INSTRUCTIONAL LEVEL?"

1. DATA AVAILABLE TO GROUP FOR REVIEW:
   - —CURRENT CLASSROOM EXAMPLES OF READING ASSIGNMENTS
   - —PREVIOUS READING GRADES
   - —LIST OF ATTEMPTED CLASSROOM REMEDIATION AND RESULTS
   - —PREVIOUS TEACHER COMMENTS
   - —CURRENT READING LEVEL
   - —ACHIEVEMENT TEST RESULTS
   - —HEALTH SCREENING (VISION, HEARING)

PRE-ASSESSMENT CONFERENCE

2. ADDITIONAL DATA RECOMMENDED TO BE COLLECTED:

—READING ACHIEVEMENT DATA (AS CURRENT AS POSSIBLE) SHOWING HOW JOHNNY COMPARES TO HIS CLASSMATES

—CURRICULUM BASED ASSESSMENT USING SELECTED READING MATERIALS FROM SECOND AND, IF NECESSARY, FIRST GRADE CLASSES AT THAT SCHOOL. A LEVEL OF READER SHOULD BE FOUND WHICH PRESENTS MATERIAL AT A RATIO OF 93 TO 97% KNOWN WORDS EQUALS HIS INSTRUCTIONAL LEVEL

—COMPARE THIS LEVEL READER TO THE ONE CURRENTLY BEING USED (THE ASSUMPTION IS THAT IF A STUDENT IS FAILING A TASK, THE TASK IS TOO HARD—IT'S ABOVE HIS INSTRUCTIONAL LEVEL)

CHARACTERISTICS OF GOOD ASSESSMENT QUESTIONS

1. THE QUESTION IS RELEVANT TO A LEGITIMATE CONCERN OR PROBLEM
2. THE QUESTION IS ANSWERABLE
3. THE ANSWER TO THE QUESTION WILL RESULT IN INFORMATION USEFUL TO DEVELOPING AN INTERVENTION OR DETERMINING ELIGIBILITY

CHARACTERISTICS OF ASSESSMENT QUESTIONS

CRITERIA

1. IS THE QUESTION RELEVANT TO A LEGITIMATE CONCERN OR PROBLEM?
2. IS THE QUESTION ANSWERABLE?
3. WILL THE ANSWER TO THE QUESTION RESULT IN INFORMATION USEFUL TO DEVELOPING AN INTERVENTION OR DETERMINING ELIGIBILITY?

___ 1. WHAT IS JOHNNY'S CURRENT ACHIEVEMENT LEVEL IN READING?

___ 2. WHAT IS JOHNNY'S PSYCHOMOTOR FUNCTIONING?

___ 3. WHAT IS JOHNNY'S CURRENT LEVEL OF EMOTIONAL FUNCTIONING?

___ 4. WHAT IS THE NATURE OF JOHNNY'S HOME ENVIRONMENT?

___ 5. WHAT IS JOHNNY'S ADAPTIVE BEHAVIOR?

___ 6. WHAT DO MEDICAL RECORDS OBTAINED ON JOHNNY INDICATE?

___ 7. IS JOHNNY'S FATHER'S DRINKING PROBLEM THE CAUSE OF HIS SCHOOL DIFFICULTIES?

___ 8. DOES JOHNNY EXHIBIT ANY OBVIOUS VISUAL ACUITY PROBLEMS?

___ 9. DOES JOHNNY HAVE ANY FRIENDS IN THE CLASSROOM?

___10. IS JOHNNY ELIGIBLE FOR SPECIAL EDUCATION SERVICES AS LEARNING DISABLED?

BASIC PREMISE

COMPOSITION OF A MULTIDISCIPLINARY TEAM IS BEST DETERMINED BY --

1. SPECIFYING KEY ASSESSMENT QUESTIONS

   THEN

2. DETERMINING WHO WILL MOST COMPETENTLY AND EFFICIENTLY ANSWER THOSE QUESTIONS

FACTORS INFLUENCING DECISION-MAKING

PREFERENCES FOR TYPES OF STUDENTS (DEGREE OF ATTRACTIVENESS, STUDENT WORK MOTIVATION, TYPE OF PROBLEM DISPLAYED, ETC.)

JOB ATTITUDE (POSITIVE-NEGATIVE)

TOLERANCE LEVELS FOR BEHAVIORS (WHAT CAN BE IGNORED)

AMOUNT OF PROFESSIONAL TRAINING

PREVIOUS EXPERIENCE (BOTH NATURE AND AMOUNT)

SCHOOL SYSTEM PRESSURES (OTHERS DON'T HAVE THESE PROBLEMS; WE NEED TO HELP THESE STUDENTS)

PARENT PRESSURES (WE WANT EXTRA HELP FOR OUR CHILD)

PLACEMENT COMMITTEE DECISIONS

(MORROW, et al., 1976)

TEN PLACEMENT COMMITTEES GIVEN DATA ON 12 STUDENTS

PROBLEM: TO DECIDE WHETHER OR NOT EACH STUDENT WAS ELIGIBLE FOR SPECIAL EDUCATION SERVICES

- SIX CASES HAD BEEN RECOMMENDED FOR SPECIAL EDUCATION
- SIX CASES RECOMMENDED FOR REGULAR CLASSROOM
- 1/2 OF THESE CASES FROM EACH GROUP INCLUDED SOCIAL HISTORY INFORMATION
- 1/2 OF THESE CASES FROM EACH GROUP DID NOT HAVE SOCIAL HISTORY INFORMATION

RESULTS: THE COMMITTEE DECISIONS REGARDING SPECIAL EDUCATION ELIGIBILITY SHOWED NO SIGNIFICANT RELATION EITHER:

(1) TO THE PSYCHOLOGISTS' RECOMMENDATIONS FOR PLACEMENT, OR

(2) TO THE PRESENCE OR ABSENCE OF SOCIAL HISTORY INFORMATION

TO WHAT EXTENT ARE TEAM DECISIONS DATA-BASED?

(RICHEY & GRADEN, 1980)

PROBLEM: TO STUDY THE DEGREE OF RELATIONSHIP BETWEEN TEAM ELIGIBILITY DECISIONS FOR LEARNING DISABILITIES AND DATA PRESENTED AT THE MEETING

- 20 VIDEOTAPES OF TEAM MEETINGS ANALYZED USING OBSERVATION SYSTEM
- TWO TYPES OF STATEMENTS CODED:
  (1) THOSE RELATED TO EXPECTED LEVEL OF PERFORMANCE (CURRENT GRADE PLACEMENT, EXPECTED GRADE LEVEL, AGE), AND
  (2) THOSE RELATED TO ACTUAL LEVEL OF PERFORMANCE (OBTAINED SCORES, OBSERVATIONAL MEASURES, STATEMENTS OF ATTITUDES)
- EACH STATEMENT CODED IN ONE OF THREE WAYS:
  (1) SUPPORTIVE, (2) REFUTING, OR
  (3) IRRELAVANT TO DETERMINING ELIGIBILITY FOR LEARNING DISABILITY SERVICES
- THE FOUR ELIGIBILITY CRITERIA SELECTED AS DECISION CRITERIA:
  (1) DISCREPANCY BETWEEN ACTUAL ACHIEVEMENT AND ABILITY
  (2) A SIGNIFICANT VERBAL/PERFORMANCE DISCREPANCY ON THE WISC-R
  (3) THE CURRENT FEDERAL DEFINITION CRITERIA
  (4) THE ACTUAL ELIGIBILITY DECISION FOR LD SERVICES MADE BY THE TEAMS

RESULTS

1. MODERATE CORRELATION (R = .52) BETWEEN AMOUNT OF INFORMATION PRESENTED AND CLASSIFICATION AS LEARNING DISABLED
2. 83% OF STATEMENTS MADE CONSIDERED IRRELEVANT TO ELIGIBILITY DECISION
3. NO RELATIONSHIP FOUND BETWEEN STATEMENTS RELEVENT TO ABILITY/ACHIEVEMENT, VERBAL/PERFORMANCE DISCREPANCIES, OR FEDERAL DEFINITION CRITERIA, AND PLACEMENT TEAM DECISION

SUMMARY POINT

"THE DATA DID NOT SUPPORT THE BELIEF THAT TEAMS USE SPECIFIC (OR FORMAL) CRITERIA IN MAKING ELIGIBILITY DECISIONS, NOR THAT ASSESSMENT DATA ARE USED TO SUPPORT OR REFUTE ELIGIBILITY (p.53) "

EFFECTS OF BIASED CASE FOLDER INFORMATION ON DIAGNOSTIC DECISION MAKING

(Ysseldyke & Algozzine, 1980)

PROBLEM: IF TEST DATA ARE HELD CONSTANT, WHAT EFFECT DOES VARYING STUDENT CHARACTERISTICS IN THE REFERRAL INFORMATION HAVE UPON ELIGIBILITY AND DIAGNOSTIC CLASSIFICATION DECISIONS?

- IN A COMPUTER SIMULATION STUDY, SCHOOL PROFESSIONALS (N = 83) WERE ASKED TO MAKE DECISIONS ABOUT A STUDENT BASED UPON INITIAL CASE FOLDER INFORMATION
- PARTICIPANTS COULD REQUEST DIAGNOSTIC TEST DATA FROM SEVEN DOMAINS (BUT SCORES WERE AVERAGE IN ALL DOMAINS)
- INITIAL REFERRAL INFORMATION WAS VARIED ON THE BASIS OF: SEX, SOCIO-ECONOMIC STATUS, PHYSICAL ATTRACTIVENESS AND NATURE OF REFERRAL PROBLEM (ACADEMIC OR BEHAVIOR)
- PARTICIPANTS WERE ASKED TO MAKE DECISIONS ABOUT THE STUDENT'S (1) ELIGIBILITY FOR SPECIAL EDUCATION SERVICES, AND (2) DIAGNOSTIC CLASSIFICATION

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RESULTS

1. TESTS WERE SELECTED IN A SIMILAR MANNER REGARDLESS OF INFORMATION PRESENTED AT TIME OF REFERRAL
2. REGARDLESS OF TEST SELECTION SIMILARITY, **DIFFERENT DECISIONS** WERE MADE ABOUT THE STUDENT (ALL TEST PERFORMANCE DATA WERE DEPICTED AS AVERAGE). APPROXIMATELY 52% OF THE PARTICIPANTS FOUND THE CHILD ELIGIBLE FOR SPECIAL EDUCATION SERVICES
3. DIAGNOSTIC CLASSIFICATION DECISIONS WERE A FUNCTION OF STUDENT CHARACTERISTICS DESCRIBED IN THE REFERRAL INFORMATION:
    a. EMOTIONALLY DISTURBED CLASSIFICATIONS WERE MORE LIKELY WHEN THE REFERRAL STATEMENT INDICATED BEHAVIORAL PROBLEMS (NO EVIDENCE FOR SUCH CONFIRMATION WAS INDICATED IN BEHAVIORAL ASSESSMENT DATA REQUESTED BY PARTICIPANTS)
    b. NO CLASSIFICATIONS OF MENTAL RETARDATION WERE MADE
    c. LEARNING DISABLED CLASSIFICATIONS WERE RELATED TO A VARIETY OF SPECIFIC FACTORS. FOR EXAMPLE: UNATTRACTIVE, LOW SES GIRLS REFERRED FOR ACADEMIC PROBLEMS WERE MUCH MORE LIKELY TO BE DIAGNOSED LD THEN UNATTRACTIVE, LOW SES GIRLS REFERRED FOR BEHAVIOR PROBLEMS

SUMMARY POINT

IT IS POSSIBLE ". . . THAT EXAMINERS MAY HOLD, AND SEEK TO CONFIRM (WITH OR WITHOUT APPROPRIATE EVIDENCE), PRECONCEIVED NOTIONS ABOUT THE ASSESSMENT OUTCOMES BASED UPON THE CHILD'S 'CHARACTERISTICS' "

TWO PURPOSES OF PSYCHOLOGICAL ASSESSMENT

1. ELIGIBILITY DETERMINATION
2. EDUCATIONAL PROGRAMMING

FACTORS INFLUENCING THE TEST BATTERY

1. SCHOOL SYSTEM DEMANDS THAT A CERTAIN NUMBER OF STUDENTS BE "TESTED" WITHIN A CERTAIN TIME PERIOD
2. AMOUNT OF TIME AVAILABLE TO TEST. IN ORDER TO BE EFFICIENT WE USE THE SMALLEST NUMBER OF TESTS, YET TRY TO USE THAT INFORMATION TO ANSWER BOTH TYPES OF ASSESSMENT QUESTIONS

FIVE STEPS IN BUILDING A COMPREHENSIVE PICTURE

1. DEVELOP TWO SETS OF QUESTIONS AROUND REFERRAL PROBLEM:
   a. WHY—DOES JOHNNY BEHAVE THIS WAY?
   b. WHAT—CAN BE DONE ABOUT IT?
2. EXPAND "WHY" QUESTIONS INTO TWO MAJOR AREAS:
   a. WHY DOES A STUDENT FAIL/MISBEHAVE:
      (1) STUDENT CHARACTERISTICS AND/OR
      (2) SCHOOL SYSTEM CHARACTERISTICS
   b. IF ANSWER TO "WHY" CENTERS ON POSSIBILITY OF A HANDICAP (A STUDENT CHARACTERISTIC), A SET OF QUESTIONS EMERGES ON WHETHER OR NOT HE DISPLAYS CHARACTERISTICS OR MEETS THE ELIGIBILITY CRITERIA FOR THE PARTICULAR HANDICAP

3. DEVELOP ASSESSMENT QUESTIONS (PRE-ASSESSMENT PHASE), THEN ANALYZE KNOWN DATA FOR ANSWERS TO AS MANY QUESTIONS AS POSSIBLE
4. IF AN UNANSWERED QUESTION CONCERNS POSSIBLE PRESENCE OF A HANDICAP, CHECK ELIGIBILITY CRITERIA FOR SECOND SOURCE OF ASSESSMENT QUESTIONS REGARDING "WHY"
5. ASSIGN UNANSWERED ASSESSMENT QUESTIONS TO MULTIDISCIPLINARY TEAM TO GATHER ANSWERS

MAJOR POINT:

WITH ABOVE CONDITIONS, ASSESSMENT DIFFERENT FOR EACH STUDENT SINCE QUESTIONS GENERATED SHOULD FOCUS ON BOTH STUDENT AND CLASSROOM ENVIRONMENT AS INTERACTIVE FACTORS RESULTING IN THE DEFINED REFERRAL PROBLEM

MENTAL RETARDATION

" 'MENTAL RETARDATION' MEANS SIGNIFICANTLY SUBAVERAGE GENERAL INTELLECTUAL FUNCTIONING EXISTING CONCURRENTLY WITH DEFICITS IN ADAPTIVE BEHAVIOR AND MANIFESTED DURING THE DEVELOPMENTAL PERIOD, WHICH ADVERSELY AFFECTS A CHILD'S EDUCATIONAL PERFORMANCE." (P.L. 94-142)

THREE MEASURABLE ELEMENTS

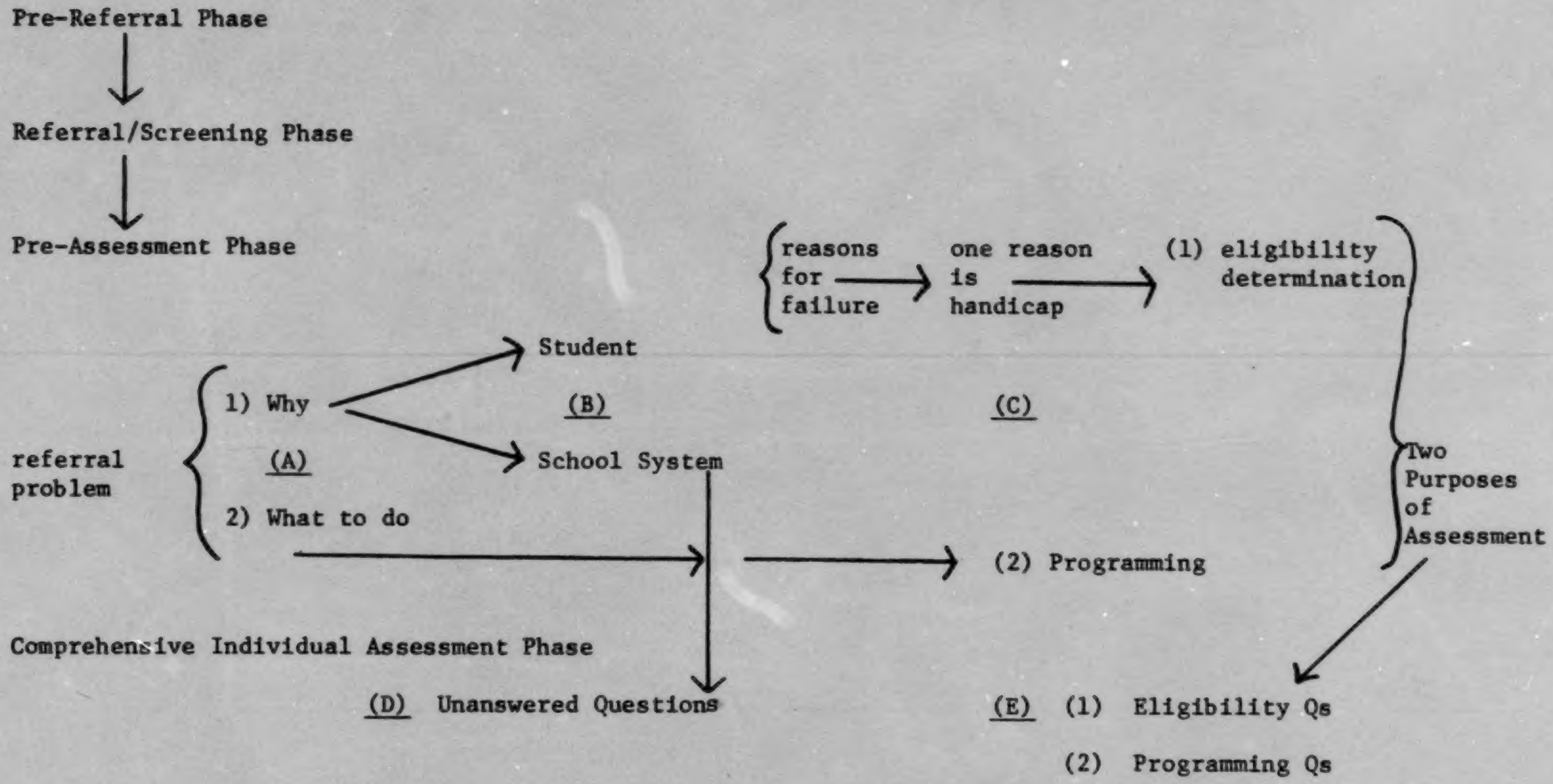
1. SUB-AVERAGE INTELLIGENCE
2. DEFICIT IN ADAPTIVE BEHAVIOR
3. ADVERSELY AFFECTED EDUCATIONAL PERFORMANCE

ELIGIBILITY QUESTIONS

1. IS THE STUDENT SIGNIFICANTLY SUB-AVERAGE IN INTELLECTUAL FUNCTIONING?
2. ARE THERE CONCURRENT DEFICITS IN ADAPTIVE BEHAVIOR?
3. DO THE SIGNIFICANT SUB-AVERAGE INTELLECTUAL FUNCTIONING AND IMPAIRED ADAPTIVE BEHAVIOR SIGNIFICANTLY AFFECT EDUCATIONAL PERFORMANCE?

OVERVIEW

ORIGINS OF ASSESSMENT QUESTIONS



Pre-Referral Phase

Referral/Screening Phase

Pre-Assessment Phase

reasons for failure → one reason is handicap → (1) eligibility determination

referral problem
- 1) Why → Student / School System
- (A)
- 2) What to do → (2) Programming

(B)

(C)

Two Purposes of Assessment

Comprehensive Individual Assessment Phase

(D) Unanswered Questions

(E) (1) Eligibility Qs
(2) Programming Qs

FIVE STEPS TO COMPREHENSIVE PICTURE

1. THE TWO SETS OF QUESTIONS AROUND REFERRAL PROBLEM GENERATE (A)
2. FIRST SET OF WHY QUESTIONS EXPANDS INTO TWO AREAS (B)

   FROM STUDENT AREA, ONE QUESTION COULD BE "IS THERE A HANDICAP?" (C)
3. UNANSWERED ASSESSMENT QUESTIONS AFTER ANALYZING KNOWN DATA (D)
4. ELIGIBILITY CRITERIA + PROGRAMMING QUESTIONS = (E)
5. ASSIGN UNANSWERED QUESTIONS AT (D) AND (E) TO MULTIDISCIPLINARY TEAM

THREE GENERAL ASSESSMENT QUESTIONS

1. IS A HANDICAPPING CONDITION PRESENT?
2. DOES THE HANDICAP "ADVERSELY AFFECT" EDUCATIONAL PERFORMANCE?
3. WHAT ARE THE STUDENT'S SPECIFIC INSTRUCTIONAL NEEDS?

TWO CONSIDERATIONS WHEN MEASURING ADVERSE EFFECTS

1. USE NORM REFERENCED TESTS TO COMPARE STUDENT'S PERFORMANCE TO NORM GROUP
2. CONSIDER THESE COMPARISONS ALSO:
   (A) "AVERAGE" DISTRICT LEVEL PERFORMANCE COMPARED TO NATIONAL NORMS
   (B) "AVERAGE" FOR ALL STUDENTS AT THAT GRADE LEVEL ON HIS CAMPUS COMPARED TO ENTIRE DISTRICT GRADE LEVEL
   (C) "AVERAGE" FOR STUDENTS IN HIS CLASS TO REST OF CAMPUS AT SAME GRADE LEVEL

TWO MAJOR POINTS WHEN MEASURING STUDENT INSTRUCTIONAL NEEDS

1. TESTS USED FOR ELIGIBILITY DETERMINATION RARELY CAN BE USED FOR EDUCATIONAL PROGRAMMING
2. CRITERION-REFERENCED RATHER THAN NORM REFERENCED ACHIEVEMENT TESTS SHOULD BE USED

   (ACTUAL CURRICULUM MATERIALS FROM THE CLASSROOM—STUDENT'S READING/MATH BOOKS—PROVIDE MOST USEFUL DATA FOR INSTRUCTION)

COMPLETING COMPREHENSIVE INDIVIDUAL ASSESSMENT

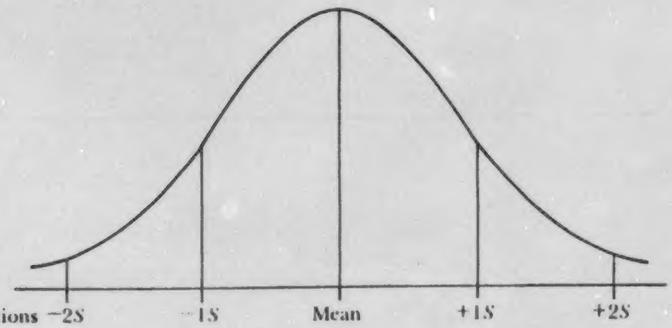
- MULTIDISCIPLINARY TEAM REVIEWS ALL CURRENT DATA TO SEE IF ALL UNANSWERED QUESTIONS HAVE BEEN ANSWERED
- IF NOT, ADDITIONAL DATA ARE COLLECTED TO ANSWER ALL REMAINING QUESTIONS
- IF SO, TEAM IS READY TO COMPILE REPORT

FOUR TYPES OF DEVIATIONS FOR DEVELOPMENTAL ASSESSMENTS

1. NORMAL
2. GENERAL DEVELOPMENTAL DELAY
3. DOMAIN SPECIFIC
4. WITHIN DOMAIN DEVIATIONS

TYPES OF DEVELOPMENTAL ASSESSMENT PROCEDURES

1. PSYCHOMETRIC TESTS (e.g., WISC-R)
2. CRITERION REFERENCED TESTS
3. PIAGETIAN BASED SCALES
4. RATING SCALES
5. OBSERVATIONAL PROCEDURES
6. OTHER



Standard deviations	−2*S*	−1*S*	Mean	+1*S*	+2*S*
Standard scores					
z-scores	−2.00	1.00	0	+1.00	+2.00
T-scores	30	40	50	60	70
IQ (*S* = 16)	68	84	100	116	132
Stanines	←1→←2→←3→←4→←5→←6→←7→←8→←9→				
Percentiles	2	16	50	84	98
Age equivalents for 10-year-old children on the 1972 Stanford-Binet	6-11	8-8	10-6	12-4	14-1

Figure **5.2** Relationship among selected standard scores, percentiles, and *one* age score and the normal curve

From Salvia, J. and Ysseldyke, J. Assessment in Special and Remedial Education, 1981, 2nd ed.

WORKSHEET FOR COMPARING THE SCALED SCORES WITH THE MEAN SCALE SCORES ON THE WISC-R

WISC-R SUBTEST	EXAMINEE'S SUBTEST SCALED SCORE	DEVIATION FROM MEAN	SIGNIFICANCE LEVEL
Information	10	0	Not significant
Comprehension	6	-4	.05
Arithmetic	8	-2	Not significant
Similarities	5	-5	.05
Vocabulary	8	-2	Not significant
Picture Completion	10	0	Not significant
Picture Arrangement	11	+1	Not significant
Block Design	15	+5	.05
Object Assembly	12	+2	Not significant
Coding	4	-6	.05

ADAPTED FROM SATTLER (1974)

SUMMARY

1. KNOW THE SD FOR THE SUBSCALE TO DETERMINE IF IT IS SIGNIFICANTLY DIFFERENT FROM THE MEAN
2. 95% CONFIDENCE LEVEL = SD FOR SUBSCALE × ±1.96
3. 99% CONFIDENCE LEVEL = SD FOR SUBSCALE × ±2.58
4. THE NORMAL CURVE CAN BE USED WITH ANY NORM REFERENCED AND STANDARDIZED TEST
5. SD'S ARE GENERALLY PRESENTED IN A TEST MANUAL

TABLE C-7. Differences Required for Significance When Each WISC-R Subtest Scaled Score Is Compared to the Mean Scaled Score for Any Individual Child

Subtest	5 Verbal Scale Subtests[a] .05	5 Verbal Scale Subtests[a] .01	6 Verbal Scale Subtests .05	6 Verbal Scale Subtests .01	5 Performance Scale Subtests[b] .05	5 Performance Scale Subtests[b] .01	6 Performance Scale Subtests .05	6 Performance Scale Subtests .01
Information	2.81	3.37	2.94	3.50	—	—	—	—
Similarities	3.07	3.68	3.22	3.84		—	—	—
Arithmetic	3.14	3.76	3.30	3.93	—	—	—	—
Vocabulary	2.74	3.29	2.86	3.41	—	—	—	—
Comprehension	3.15	3.78	3.32	3.95	—	—	—	—
Digit Span	—	—	3.42	4.07	—	—	—	—
Picture Completion	—			—	3.38	4.06	3.55	4.22
Picture Arrangement	—			—	3.59	4.31	3.78	4.50
Block Design	—	—	—	—	2.92	3.50	3.03	3.61
Object Assembly	—	—	—	—	3.82	4.58	4.03	4.80
Coding	—	—	—	—	3.70	4.43	3.89	4.64
Mazes	—	—	—	—	—	—	4.03	4.80

Subtest	10 Subtests[c] .05	10 Subtests[c] .01	11 Subtests[a] .05	11 Subtests[a] .01	11 Subtests[b] .05	11 Subtests[b] .01	12 Subtests .05	12 Subtests .01
Information	3.25	3.80	3.29	3.85	3.30	3.86	3.34	3.89
Similarities	3.60	4.21	3.65	4.27	3.66	4.28	3.71	4.32
Arithmetic	3.69	4.32	3.75	4.38	3.76	4.39	3.81	4.44
Vocabulary	3.15	3.69	3.19	3.73	3.20	3.74	3.24	3.78
Comprehension	3.71	4.35	3.77	4.41	3.78	4.42	3.83	4.47
Digit Span			3.89	4.55			3.96	4.61
Picture Completion	3.86	4.52	3.92	4.58	3.93	4.59	3.98	4.64
Picture Arrangement	4.14	4.85	4.21	4.92	4.22	4.93	4.28	4.99
Block Design	3.20	3.75	3.24	3.79	3.25	3.80	3.29	3.83
Object Assembly	4.45	5.22	4.53	5.30	4.54	5.31	4.61	5.37
Coding	4.29	5.02	4.36	5.10	4.37	5.10	4.43	5.17
Mazes	—	—	—	—	4.54	5.31	4.61	5.37

Note. Table C-7 shows the minimum deviations from an individual's average subtest scaled score that are significant at the .05 and .01 levels.

The following formula, obtained from Davis (1959), was used to compute the deviations from average that are significant at the desired significance levels: D = CR × $S_{m((T/m)-Z_i)}$, where D is the deviation from average, CR is the critical ratio desired, and $S_{m((T/m)-Z_i)}$ is the standard error of measurement of the difference between an average subtest scaled score and any one of the subtest scaled scores that entered into the average. The standard error of measurement can be obtained by the following formula:

$$S_{m((T/m)-Z_i)} = \sqrt{\frac{S^2_{mT}}{m^2} + \left(\frac{m-2}{m}\right) S^2_{mZ_i}}$$

where S^2_{mT} is the sum of the squared standard errors of measurement of the m subtests, m is the number of subtests included in the average, T/m is the average of the subtest scaled scores, and $S^2_{mZ_i}$ is the squared standard error of measurement of any one of the subtest scaled scores. The critical ratio for the 5 percent level ranges from 2.58 to 2.87, and that for the 1 percent level from 3.09 to 3.34, depending on the number of subtests. These critical ratios were obtained by use of the Bonferroni inequality, which controls the familywise error rate at .05 (or .01) by setting the error rate per comparison at .05/m (or .01/m).

Reprinted with permission from J. M. Sattler, Assessment of Children's Intelligence and Special Abilities, 1982, 2nd ed.

Worksheet for Comparing the Average of Several Subtest Scaled Scores with One of the Subtest Scores Included in the Average

Subtest	Examinee's Subtest Scaled Score	Deviation From Average	Significance Level
Information	10	1.1	Not significant
Comprehension	6	2.9	Not significant
Arithmetic	8	.9	Not significant
Similarities	5	3.9	.05
Vocabulary	8	.9	Not significant
Picture Completion	10	1.1	Not significant
Picture Arrangement	11	2.1	Not significant
Block Design	15	6.1	.01
Object Assembly	12	3.1	Not significant
Coding	4	4.9	.05
Sum of scaled scores	89		
Average scaled scores	8.9		

NOTE: SIGNIFICANCE LEVELS OBTAINED FROM TABLE C-7 IN APPENDIX (SATTLER, 1982)

ADAPTED FROM DAVIS (1959) AND SATTLER (1974)

DEVELOPMENTAL ASSESSMENT

METHOD A — NORM REFERENCED

METHOD B — CRITERION REFERENCED

CRITERION REFERENCED TESTS

"RATHER THAN INDICATING A PERSON'S RELATIVE STANDING IN SKILL DEVELOPMENT, CRITERION REFERENCED TESTS MEASURE A PERSON'S DEVELOPMENT OF PARTICULAR SKILLS IN TERMS OF ABSOLUTE LEVELS OF MASTERY"

(Salvia & Ysseldyke, 1978, p. 29).

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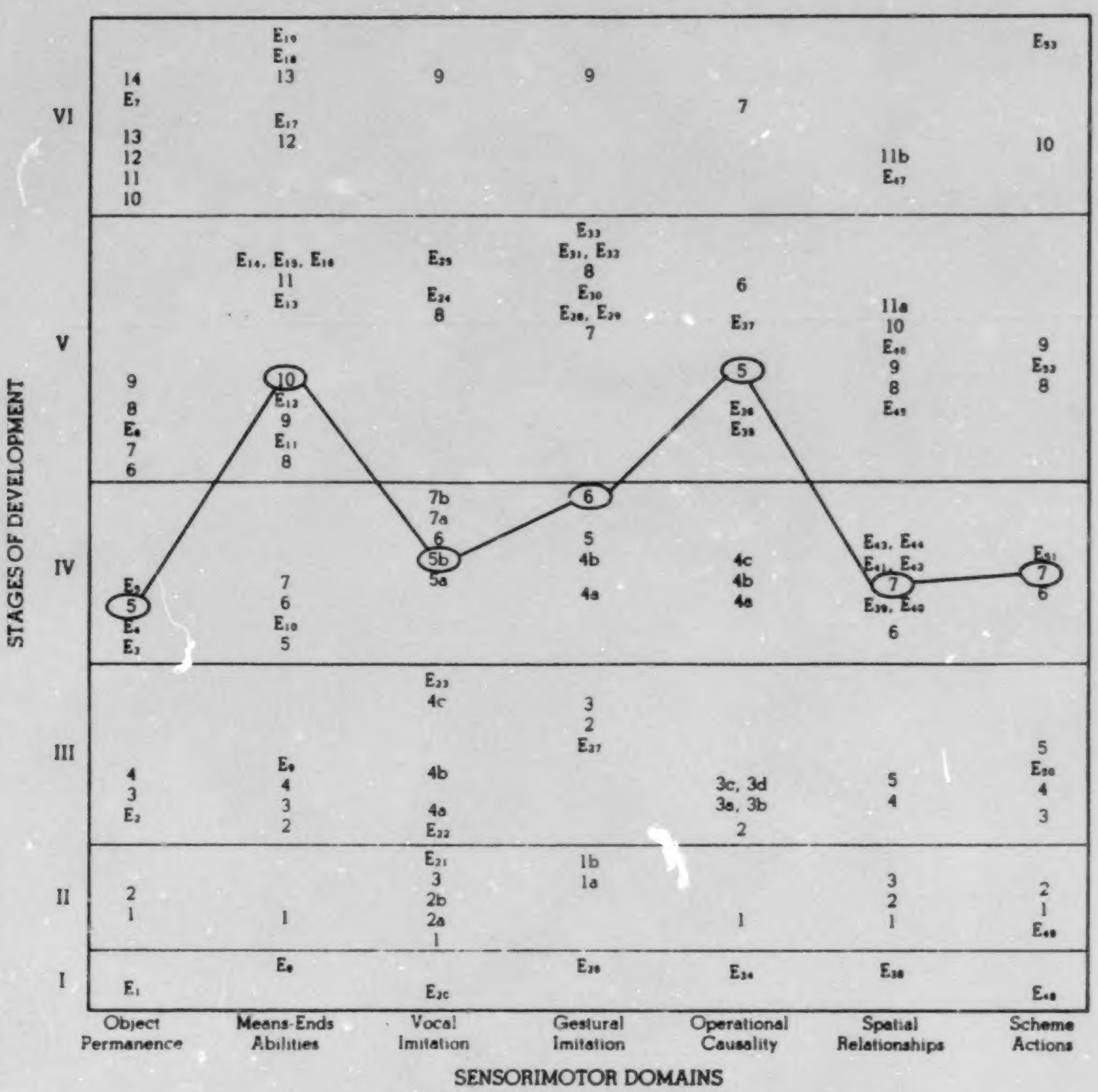
EXPECTANCY TABLE FOR PERCENTAGE OF READING MASTERY
FOR CHILDREN IN GRADE LEVEL 1.5

Scores	**Grade Level (Mastery)**					
	P	K	1.0	1.5	2.0	2.5
90-100						100
80-89					100	90
70-79				100	90	80
60-69			100	90	80	70
50-59		100	90	80	70	60
40-49	100	90	80	70	60	50
30-39	90	80	70	60	50	40
20-29	80	70	60	50	40	30
< 20	70	60	50	40	30	20

Mean = 50

PIAGETIAN SCALES — MEASURE THE DIFFERENT LEVELS OF UNDERSTANDING OF A PARTICULAR CONCEPT

CRITERION REFERENCED TESTS — MEASURE THE AMOUNT OF MATERIAL MASTERED



Profile of abilities for Andrew (Case C).

Reprinted with permission from Dunst, C. J. A clinical and educational manual for use with the Uzgiris and Hunt scales of infant psychological development. Baltimore: University Park Press, 1980.

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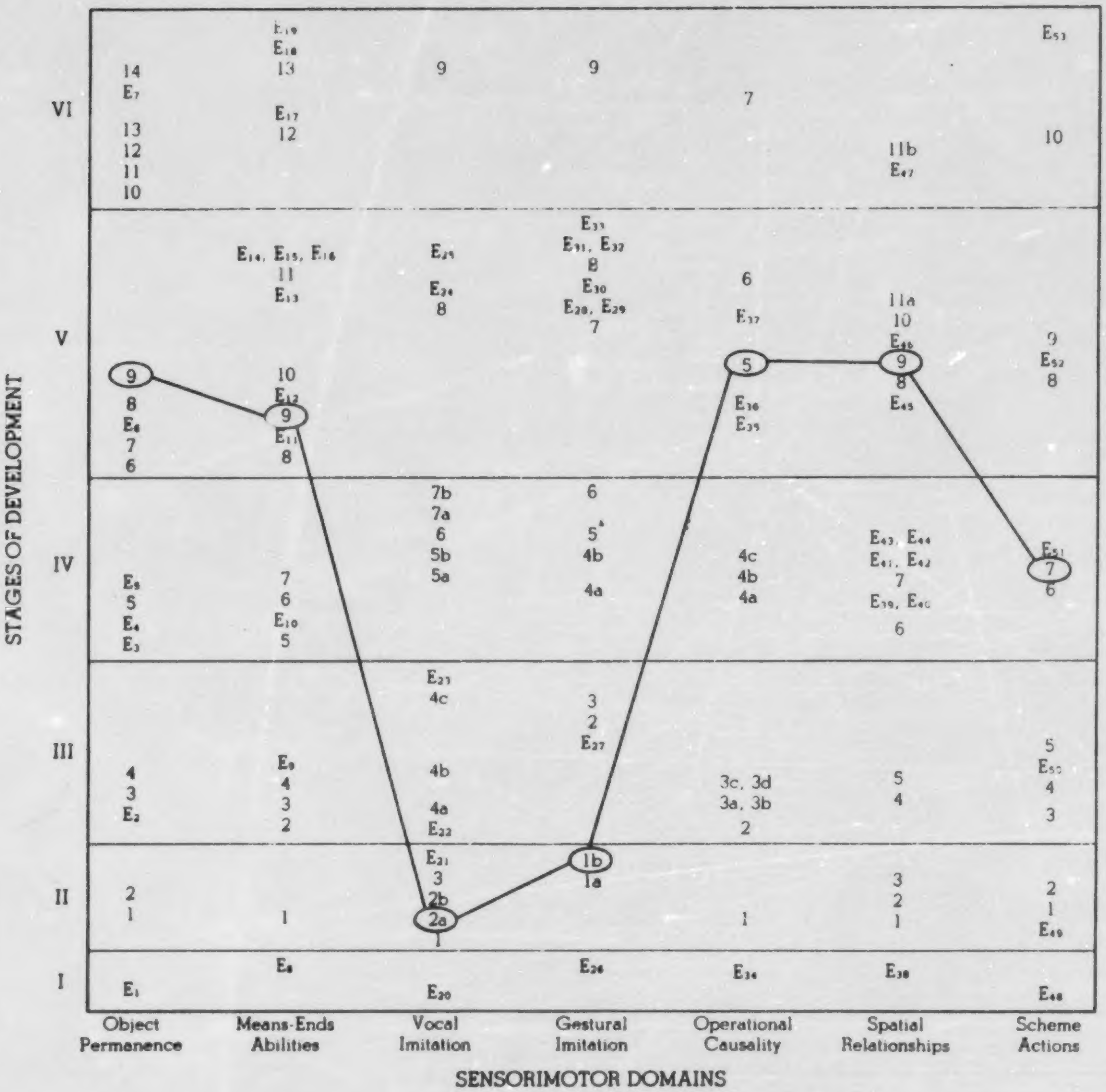


Profile of abilities for Amanda (Case I).

Reprinted with permission from Dunst, C. J. A clinical and educational manual for use with the Uzgiris and Hunt scales of infant psychological development. Baltimore: University Park Press, 1980

RATING SCALES

STANDARDIZED AND NORM REFERENCED RATING SCALES CAN BE INTERPRETED IN THE SAME MANNER AS PSYCHOMETRIC TESTS

FOUR TYPICAL OBSERVATION TECHNIQUES

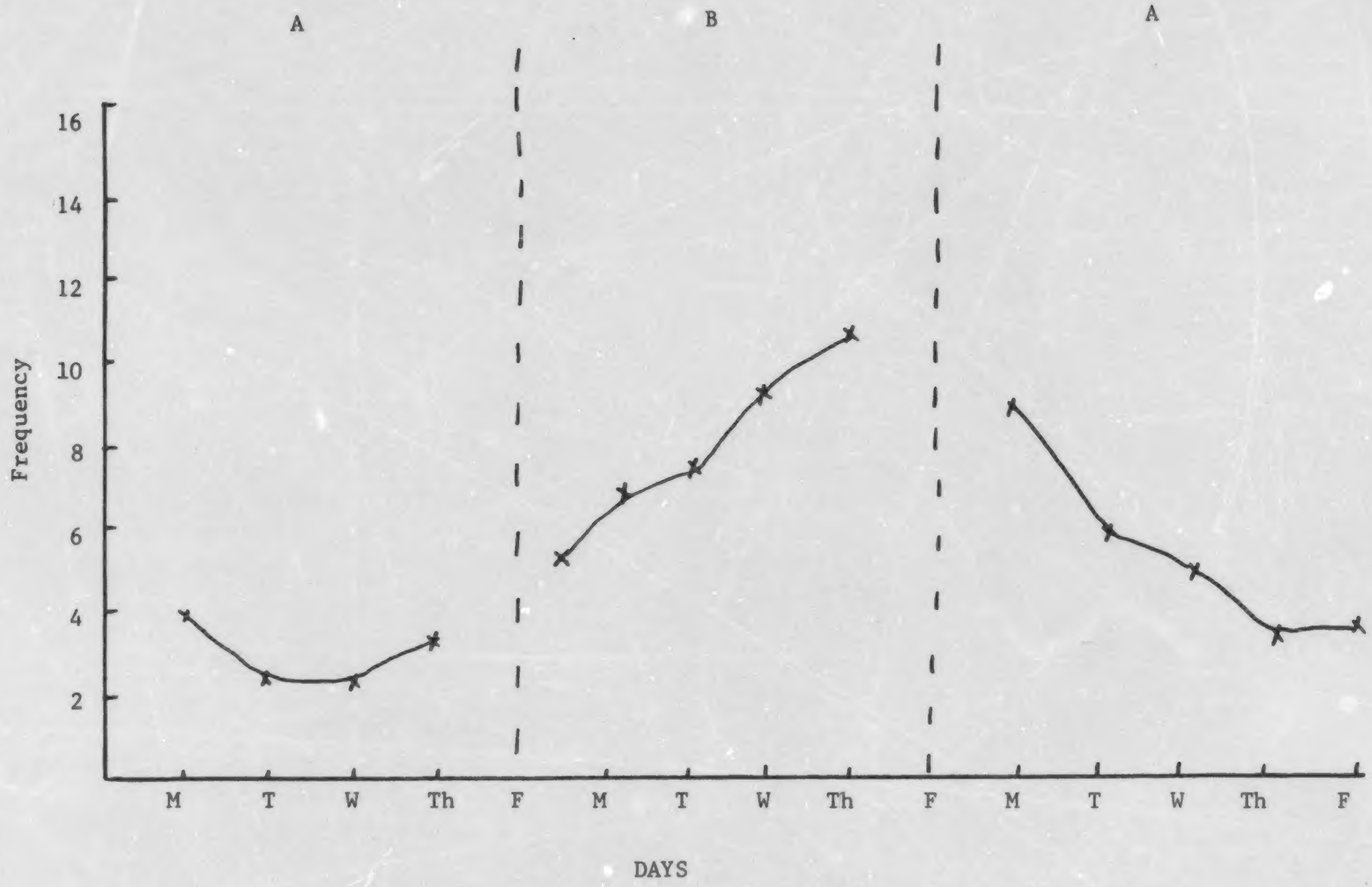
1. FREQUENCY COUNTS
2. CHECKLISTS
3. ANECDOTAL RECORDS
4. DIARY/JOURNAL DESCRIPTIONS

FUNCTIONAL ANALYSIS OF BEHAVIOR

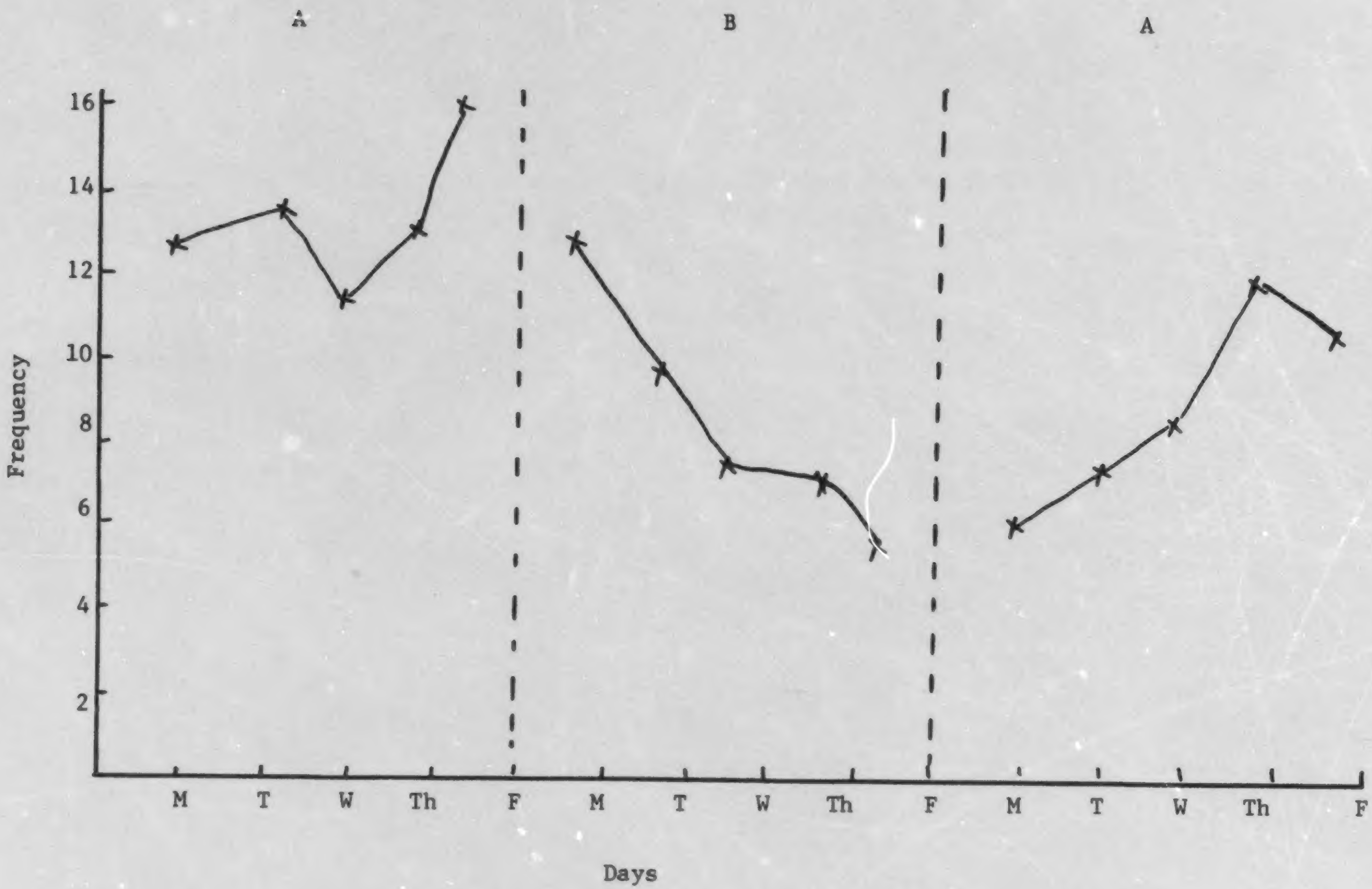
"THE FOREMOST GOAL OF A FUNCTIONAL ANALYSIS IS THE MODIFICATION OF DEFICIENT OR UNACCEPTABLE BEHAVIOR"

(Haywood, et al., 1975)

TARGET BEHAVIOR: ON-TASK PERFORMANCE



TARGET BEHAVIOR: INAPPROPRIATE TALKING IN CLASS



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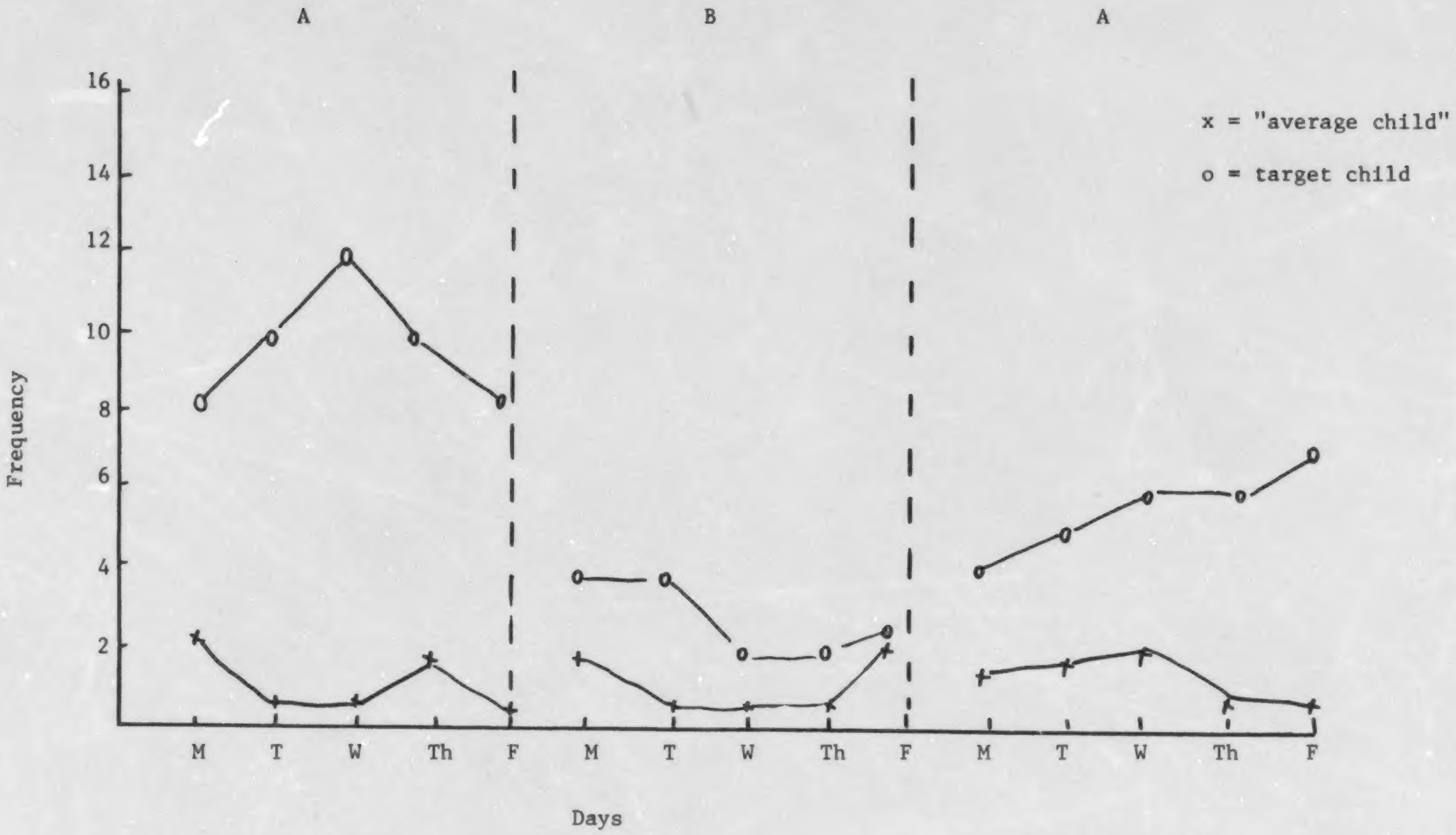
TARGET BEHAVIOR: OUT-OF-SEAT BEHAVIOR



3 TRENDS IN EDUCATIONAL DECISION MAKING

1. ROMANTICISM
2. CULTURAL TRANSMISSION
3. PROGRESSIVISM

THE THREE BASIC EDUCATIONAL IDEOLOGIES, DEVELOPMENTAL PERSPECTIVES, AND INSTRUCTIONAL DERIVATIONS

	Philosophical-Educational Ideologies		
Corollary Issues	Romanticism	Progressivism	Cultural Transmission
Psychology	Maturational	Cognitive-Developmental	Associationistic-Learning/ Environmental
Concept of Development	Genetically Predetermined and Ordered	Sequential, Hierarchical, and Integrative	Additive
Nature of Motivation	Intrinsic/Static	Intrinsic/Metastatic	Extrinsic/Metastatic
Function of Education	Self-Expression	Knowledge Acquisition (Process)	Skill Transmission (Products)
Nature and Role of the Child	Active: Self-Directed	Active: Initiates Interaction/Engages in Active Experimentation	Passive: Respondent to Cues and Discriminative Stimuli
Nature and Content of the Curriculum	Self-Directed/ Enhance Emotional Expression and Curiosity	Enhance Organism-Environmental Encounters/Resolvable Problem Solving Tasks	Programmed Instruction/ Teach Skills, Facts, Behaviors, etc.
Mode of Instruction	Unstructured Free-Play	Guided Learning	Directed Learning
Role of Teacher	Create Warm, Positive Environment	Structure Content and Order of Experiences	Engineer Learning Environment
Mode of Child-Teacher Interaction	Unidirectional $T \xrightarrow[R]{} C$	Transactional $T \rightleftarrows C$	Unidirectional $C \xrightarrow[R]{} T$

R: Responds to

	PROGRESSIVISM	**CULTURAL TRANSMISSION**
PROCEDURES	AFFORD EXPERIENCES THAT PERMIT A CHILD TO BE *GUIDED* TO LEARN	AFFORD EXPERIENCES THAT TRANSMIT DIRECT INFORMATION
GOALS	TO FOSTER THE ABILITY TO ORGANIZE AND USE KNOWLEDGE	TO TEACH APPROPRIATE FUNCTIONING IN SOCIETY

SPECIAL CONSIDERATIONS FOR INFANTS AND PRESCHOOLERS

3 MODELS —

1. DIAGNOSTIC TREATMENT MODEL
2. ABILITY-ENRICHMENT MODEL
3. ASSESSMENT-INTERVENTION MODEL

DIAGNOSTIC TREATMENT MODEL

MEDICAL MODEL—IF A DISEASE CAN BE IDENTIFIED, IT CAN BE CURED OR MANAGED BY A PRESCRIBED TREATMENT

ABILITY-ENRICHMENT MODEL

THE TASK IS TO PREDICT FUTURE PERFORMANCE OF INFANTS AND CHILDREN BASED ON CURRENT FUNCTIONING

ASSESSMENT-INTERVENTION MODEL

BASED ON THE PREMISE—

"AN INDIVIDUAL ACHIEVES SPECIFIC BEHAVIORS OR SKILLS IN A DEVELOPMENTAL SEQUENCE OR IN TERMS OF A TASK ANALYSIS . . ."

SPECIAL CONSIDERATIONS FOR PRESCHOOLERS AND INFANTS

- ASSESSMENT OF VISION (TABLE 2)
- ASSESSMENT OF HEARING (TABLE 3)
- IMPACT OF HANDICAPPING CONDITIONS ON DEVELOPMENT (TABLE 4)
- THE SELECTION OF FORMAL TESTS

FOR ADDITIONAL INFORMATION ON —

- ADAPTING TESTS
- INFORMAL TESTING
- EXAMINING RELATED BEHAVIOR

REFER TO MODULE RESOURCE MATERIAL

Table 8
THE CLASSIFICATION OF EXCEPTIONAL LEARNERS

Handicap	Legal Definition	Functional Definition
Deaf/Blind	"Concomitant hearing and vision impairment, the combination of which causes such severe communication and other developmental and educational problems that they cannot be accommodated in special education programs solely for deaf or blind children."	The majority of the deaf-blind persons served under this legal definition are nonverbal and have some usable vision. Additionally many have moderate to severe retarded development in other behavioral domains. They need intensive educational programs that focus on total communication and acquisition of basic skills. Some can be served in programs for severely or multihandicapped, others can be served in classes for the visually impaired or hearing impaired if additional support is available.
Orthopedically Impaired	"A severe orthopedic impairment, which adversely affects a child's educational performance. The term includes impairments caused by congenital anomaly (e.g., clubfoot, absence of some member, etc.), impairments caused by disease (e.g., poliomyelitis, bone tuberculosis, etc.), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns which cause contractures)."	Severe mobility problems occur frequently. Intelligence can vary from severe retardation to giftedness. They are likely to have additional hearing or vision problems that require special attention. They fit into almost any educational setting that is supportive and able to provide the extra adaptive equipment and help needed to meet physical and educational requirements.

TABLE 8
THE CLASSIFICATION OF EXCEPTIONAL LEARNERS (CONT.)

Handicap	Legal Definition	Functional Definition
Multi-handicapped	"Concomitant impairments such as mentally retarded/blind, mentally retarded-orthopedically impaired, etc., the combination of which causes such severe educational problems that they cannot be accommodated in special education programs solely for one of the impairments. The term does not include deaf-blind children."	The presence of additional impairments has a multiplicative rather than an additive effect on children. There are no set guidelines that specify which handicap determines placement. Mobility and severe sensory loss are likely to predominate with the degree of retardation determining placement with a categorical program. The needs of multihandicapped students require a generic teacher with training in all developmental areas and handicapping conditions. Additionally support from a transdisciplinary staff is required.
Mentally Retarded	"Significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period, which adversely affects a child's educational performance."	Mentally retarded persons function in a manner that is expected of persons at a young chronological age. Their performance on tasks of perception, cognition, and language are likely to reflect these differences. They may be served in any setting that provides individualized educational instruction and the support-services needed to help the person participate in the group in an acceptable manner.

Table 9
CHARACTERISTICS AND IMPACTS OF HANDICAPPING CONDITIONS
DEAF-BLIND

Characteristics	Impacts
1. Significant visual impairment, usually resulting from cataracts. With successful extraction, vision is usually the major means for receiving sensory input.	1. If visual acuity measures 3/200 or better, then appraisal and intervention through vision (pictures/print) should be explored.
2. Significant hearing impairments, most frequently characterized by (1) severe sloping impairments with hearing in the low frequencies only, or (2) flat 60 to 80 db level hearing loss in the better ear over the speech range.	2. Early amplification, training, and intelligence are the major factors that determine the extent to which auditory input can be expected to impact on skill acquisition. The presence of a hearing loss from birth greatly affects the acquisition of symbolic language, particularly speech. Deaf/Blind persons may use their hearing to keep them aware of environmental sounds and sources of danger, to supplement their understanding of signs and speech, or as a major source of language. Because of severe impairments many of the deaf/blind persons in educational settings today are using hearing only as a means of environmental contact.
3. Significant retardation in intelligence, language, motor, and social behavior.	3. Researchers vary in their reports of the impact of deaf/blindness on development. Diebold, Curtis, and DuBose 1978(a); 1978(b); reported the following mean performance scores on a population of deaf/blind children at 118 months:

	Months
Cognitive	25.78
Receptive language	21.87
Expressive language	17.75
Gross Motor	33.46
Fine Motor	33.62
Social	38.44

Table 9 (cont.)
CHARACTERITICS AND IMPACTS OF HANDICAPPING CONDITIONS
ORTHOPEDICALLY HANDICAPPED

Characteristics	Impacts
1. Significantly impaired movement.	1. The placement and severity of brain damage is a determinant of the degree of impaired movement.
2. Depending on the nature of the impairment, visual problems are likely to be present.	2. Problems in figure ground perception, shape discrimination, depth perception, acuity and field responsivity are likely to impact on performance.
3. Hearing, speech and language problems are likely to be present.	3. Learning loses are more likely to occur in cerebral palsied children. Mecham (1966) reported that 70-80% of cerebral palsied children have speech involvement. Additionally, content of language is weak in conceptualization due to limited experience base. These findings suggest a severe to profound impact on behavior traditionally appraised for educational purposes.
4. Mild to moderate health related impairments, most frequently characterized by heart, kidney and crippling conditions.	4. The presence of a heart problem is usually apparent from birth with correctional surgery performed as needed. A few children have also had cerebral palsy and in some cases, kidney problems have appeared with increased age. In general, health related problems have not had a major impact on the development of skills related to educational progress.

Table 9

CHARACTERISTICS AND IMPACTS OF HANDICAPPING CONDITIONS (CONT.)

MULTIHANDICAPPED

Characteristics	Impacts
1. At least two impairments are present, each requiring special services.	1. The impact of the two or more impairments will vary in terms of degree and type. The presence of more than one impairment has a multiplicative effect on the person. The number of the disciplines needed to plan and administer educational programs increases with each impairment.
2. Mental retardation is a likely impairment.	2. When a perceptual, physical or emotional problem is present, the likelihood of retardation being present is much greater than in the general population.

Table 9 (cont.)
CHARACTERISTICS AND IMPACTS OF HANDICAPPING CONDITIONS
SEVERELY MENTALLY RETARDED

Characteristics	Impacts
1. Performance on standardized tests is likely to be four standard deviations below the mean.	1. The presence of a low IQ or MA score is determined early in life and is likely to be a major factor in determining educational placement. Skills will be acquired slower, peak much later, and at a lower level.
2. Performance in the area of adaptive behavior is likely to be four standard deviations below the mean.	2. The presence of severe deficits in those behaviors the community expects of its members will require that one have help in meeting basic physical needs, making decisions and supporting oneself in meeting life demands.

ASSESSMENT CONSIDERATIONS

THE QUESTION, “WHAT TESTS DO I GIVE?” IS THE MOST FREQUENTLY HEARD QUESTION WHEN A PSYCHOLOGIST PLANS TO ASSESS A PERSON WITH MULTIPLE OR SEVERE IMPAIRMENTS

SELECTION OF FORMAL MEASURES

1. APPROPRIATE STANDARDIZATION POPULATION
2. UNTIMED
3. HIGH STIMULUS VALUE
4. LIMITED DEPENDENCY ON LANGUAGE
5. CONTENT REFLECTS EXPERIENCE
6. FLEXIBILITY IN ADMINISTRATIVE REQUIREMENTS

TESTING DEAF/BLIND PERSONS

1. ADMINISTRATIVE DEMANDS
2. NATURAL QUALITIES
3. NATURALISTIC PERFORMANCE
4. ADAPTIVE BEHAVIOR

TESTING ORTHOPEDICALLY IMPAIRED PERSONS

1. PERFORMANCE DEMANDS
2. MATERIAL PLACEMENT
3. MATERIAL ARRAY
4. TESTEE PLACEMENT

TESTING MULTIHANDICAPPED PERSONS

1. PERFORMANCE DEMANDS
2. MATERIAL PLACEMENT
3. INSTRUCTIONS
4. CONDITIONS

CONSIDERATIONS FOR TESTING SEVERELY MENTALLY RETARDED PERSONS

1. APPROPRIATENESS OF STIMULI
2. TESTING ENVIRONMENT
3. TESTS WITH BEHAVIOR SEQUENCES
4. PREDICTIVE ACCOUNTABILITY
5. SELECTED TESTS FOR PURPOSES OF IDENTIFICATION AND PLACEMENT (SEE TABLE 10 OF WORKBOOK)

COMPREHENSIVE REPORT

CONTAINS A DESCRIPTION OF THE STUDENT THAT INCLUDES THE REASON(S) FOR REFERRAL, THE INDIVIDUAL EVALUATION PROCESS, AND THE RESULTS IN SUFFICIENT DETAIL FOR DECISION MAKING AND PLANNING FOR SERVICE DELIVERY "

THREE SOURCES OF ASSESSMENT QUESTIONS

1. UNANSWERED QUESTIONS LEFT AFTER ANALYZING ALL KNOWN DATA ABOUT THE STUDENT
2. QUESTIONS GENERATED BY CONSIDERING ELIGIBILITY CRITERIA OF ANY SPECIFIC HANDICAPPING CONDITIONS BEING CONSIDERED
3. QUESTIONS GENERATED IN CONSIDERING THE STUDENT'S INSTRUCTIONAL NEEDS

FORMAT ONE
CHRONOLOGY OF APPRAISAL PROCESS

DEMOGRAPHIC DATA

DEFINITION OF PROBLEM

STUDENT WORK SAMPLES OR DESCRIPTION THEREOF

ALTERNATIVES TRIED/SUPPORTING DATA

SCREENING/REFERRAL DATA

ASSESSMENT QUESTIONS

ANSWERS

SUMMARY

FORMAT TWO
UNANSWERED QUESTIONS

DEMOGRAPHIC DATA

DEFINITION OF PROBLEM

KNOWN DATA

THREE SOURCES OF ASSESSMENT QUESTIONS

  A. UNANSWERED QUESTIONS FROM KNOWN DATA

  B. ELIGIBILITY CRITERIA QUESTIONS

  C. EDUCATIONAL PROGRAMMING QUESTIONS

ANSWERS

RECOMMENDATIONS

FORMAT THREE
STUDENT/SCHOOL SYSTEM CHARACTERISTICS

DEMOGRAPHIC DATA

DEFINITION OF PROBLEM

KNOWN DATA

- STUDENT CHARACTERISTICS
  - PHYSICAL (VISION, HEARING, MOTOR, MEDICAL HISTORY)
  - PSYCHOLOGICAL (EMOTIONAL VARIABLES, BEHAVIOR DESCRIPTIONS)
  - COGNITIVE (INTELLECTUAL/ACADEMIC FUNCTIONING, LANGUAGE SKILLS)
  - SOCIAL SYSTEM (ADAPTIVE BEHAVIOR, FAMILY DYNAMICS, SOCIAL HISTORY)
- SCHOOL SYSTEM CHARACTERISTICS
  - TASK DEMANDS (INSTRUCTIONAL LEVELS: READING, MATH)
  - CLASSROOM ENVIRONMENT (SIZE, GROUPINGS, NOISE, ETC.)
  - TEACHER/PEER CONSIDERATIONS (EXPECTATIONS, REINFORCEMENT, FRIENDS)

ASSESSMENT QUESTIONS

- STUDENT CHARACTERISTICS
  - PHYSICAL
  - PSYCHOLOGICAL
  - COGNITIVE
  - SOCIAL SYSTEM

FORMAT THREE (CONT'D)

ASSESSMENT QUESTIONS (CONT'D)
  SCHOOL SYSTEM CHARACTERISTICS

    TASK DEMANDS
    CLASSROOM ENVIRONMENT
    TEACHER/PEER CONSIDERATIONS

ANSWERS
  STUDENT
    PHYSICAL
    PSYCHOLOGICAL
    COGNITIVE
    SOCIAL SYSTEM
  SCHOOL SYSTEM CHARACTERISTICS
    TASK DEMANDS
    CLASSROOM ENVIRONMENT
    TEACHER/PEER CONSIDERATIONS

RECOMMENDATIONS

RESOURCE

WRITING INDIVIDUALIZED ASSESSMENT REPORTS IN SPECIAL EDUCATION: A RESOURCE MANUAL. National Association of State Directors of Special Education, Washington, D.C.: December, 1978

OUTLINE
RESULTS OF ASSESSMENT

(NASDE, 1978)

PHYSICAL DEVELOPMENT

COGNITIVE DEVELOPMENT

SOCIAL/EMOTIONAL DEVELOPMENT

EDUCATIONAL PERFORMANCE

DATA INTERPRETATION

WRITING BETTER ASSESSMENT STATEMENTS

(NASDE, 1978)

POOR STATEMENT = DURING TESTING STUDENT WAS EASILY DISTRACTED

BETTER STATEMENT = DURING TESTING HAD TO REGAIN STUDENT'S ATTENTION 15 TIMES

THE IEP TEAM IDENTIFIES NEEDS IN THE FOLLOWING AREAS:

1. CURRICULUM/ACADEMIC PROGRAMMING
2. RELATED SERVICES
3. LEARNING STYLE
4. SOCIAL/PSYCHOLOGICAL FACTORS
5. FAMILY FACTORS

P.L. 94-142

"THE EVALUATION IS MADE BY A MULTIDISCIPLINARY TEAM OR GROUP OF PERSONS, INCLUDING AT LEAST ONE TEACHER OR **OTHER SPECIALIST** WITH KNOWLEDGE IN THE AREA OF SUSPECTED DISABILITY"

IEP TEAM

TASK FUNCTIONS—

1. SETTING GOALS
2. ACQUIRING INFORMATION
3. COORDINATING INDIVIDUAL EFFORTS
4. EVALUATING GROUP EFFORT
5. DEVELOPING PROCEDURAL AGREEMENTS

IEP TEAM

MAINTENANCE FUNCTIONS—

1. ARE THOSE WHICH AFFECT THE WELFARE AND SOLIDARITY OF THE GROUP
2. INCLUDE:
   - PROVIDING FOR PHYSICAL NEEDS
   - PROVIDING FOR SOCIAL NEEDS
   - SETTLING DIFFERENCES
   - PROVIDING SUPPORT AND ENCOURAGEMENT TO EACH MEMBER

T-105

A CONTINUUM OF EDUCATION PLACEMENTS

(least restrictive) 1. REGULAR CLASS

2. SPECIAL EDUCATION PROGRAM **LOCAL SCHOOL**

3. SPECIAL EDUCATION PROGRAM IN A **SPECIAL FACILITY**

to 4. **INTERMEDIATE UNIT** IN LOCAL SCHOOL (SELF CONTAINED)

5. **INTERMEDIATE UNIT** IN SPECIAL FACILITY

6. APPROVED **PRIVATE SCHOOL**

7. **STATE SCHOOL**

(most restrictive) 8. APPROVED **OUT OF STATE SCHOOL**

SOME POSSIBLE FACTORS IN BIASED DECISION MAKING

1. CHILD'S APPEARANCE
2. LANGUAGE CHARACTERISTICS
3. SOCIOECONOMIC BACKGROUND
4. RACIAL/ETHNIC BACKGROUNDS
5. HANDICAPPING CONDITION
6. BUDGET LIMITATIONS
7. COMMUNITY ACCEPTANCE

OTHERS:

PARENT INVOLVEMENT

1. PROVIDE RELEVANT INFORMATION ABOUT THE STUDENT
2. ASSIST IN DEVELOPMENT OF IEP

IEP ANNUAL GOALS

1. WRITTEN STATEMENTS OF WHAT A STUDENT IS EXPECTED TO LEARN
2. BROAD TARGETS FOR A STUDENT'S LEARNING PROGRAM
3. INDEPENDENT OF SPECIFIC GRADE AND CURRICULAR LEVELS
4. SHOULD BE REASONABLE AND NOT FRUSTRATE A STUDENT

IEP SHORT TERM OBJECTIVES

1. ARE DERIVED FROM ANNUAL GOALS
2. REPRESENT SMALLER, MORE MANAGEABLE LEARNING TASKS
3. ARE MASTERED IN A RELATIVELY SHORTER TIME THAN GOALS
4. FOLLOW A LOGICAL SEQUENCE
5. CLEARLY STATE WHAT A STUDENT WILL DO AS A RESULT OF INSTRUCTION
6. STATE CLEARLY THE CONDITION UNDER WHICH OBSERVABLE BEHAVIOR WILL OCCUR

MEASURING SHORT TERM OBJECTIVES

1. FREQUENCY RECORDING
2. RECORDING OF BEHAVIOR DURATION
3. QUALITATIVE OR ANECDOTAL DATA RECORDING

INDIVIDUALIZING INSTRUCTION

1. ACHIEVEMENT LEVEL
2. INPUT MODALITIES
3. OUTPUT MODALITIES
4. GROUPING NEEDS
5. VARIETY NEEDS
6. MOTIVATIONAL NEEDS
7. PRACTICE NEEDS
8. COGNITIVE LEVEL

OTHER INSTRUCTIONAL STRATEGIES

1. PEER TUTORING
2. PROGRAMMED INSTRUCTION
3. TEACHING MACHINES
4. LEARNING CENTERS
5. CLASSROOM JOBS THAT REINFORCE SKILL DEFICITS
6. TEAM TEACHING
7. CHARTING INDIVIDUAL PROGRESS

LEAST RESTRICTIVE ENVIRONMENT

1. MUST BE IMPLEMENTED WITHIN THE CONTEXT OF PROVIDING APPROPRIATE PROGRAMMING
2. "IS THE PLACEMENT THAT REALIZES **A MATCH BETWEEN THE LEARNING NEEDS OF THE STUDENT AND THE CONDITIONS OF THE EDUCATIONAL ENVIRONMENT** . . ."
3. PROVIDES ACCESS TO NON-HANDICAPPED STUDENTS

RELATED SERVICES

"TRANSPORTATION AND SUCH DEVELOPMENTAL, CORRECTIVE AND OTHER SUPPORTIVE SERVICES AS ARE REQUIRED TO ASSIST A HANDICAPPED CHILD TO BENEFIT FROM SPECIAL EDUCATION"

OTHER STUDENT NEEDS

1. LEARNING STYLE
2. SOCIAL/PSYCHOLOGICAL CHARACTERISTICS
3. PHYSICAL LIMITATIONS/TRAITS

PLACEMENT OPTION WORKSHEET

STUDENT: ______________________________ DATE: ______________

OPTION: ____

1. Describe the extent to which the option meets learning needs listed on the IEP.

   A. Curriculum: ______________________________________

   ____

   ____

   B. Related Services: ______________________________________

   ____

   ____

   C. Special Media and Materials: ______________________________________

   ____

   ____

   D. ______________________________________

   ____

   E. ______________________________________

   ____

   F. ______________________________________

   ____

2. Describe the degree of integration with non-handicapped students provided by this option (academic and/or non-academic settings) and the option's proximity to the student's home.

   ____

   ____

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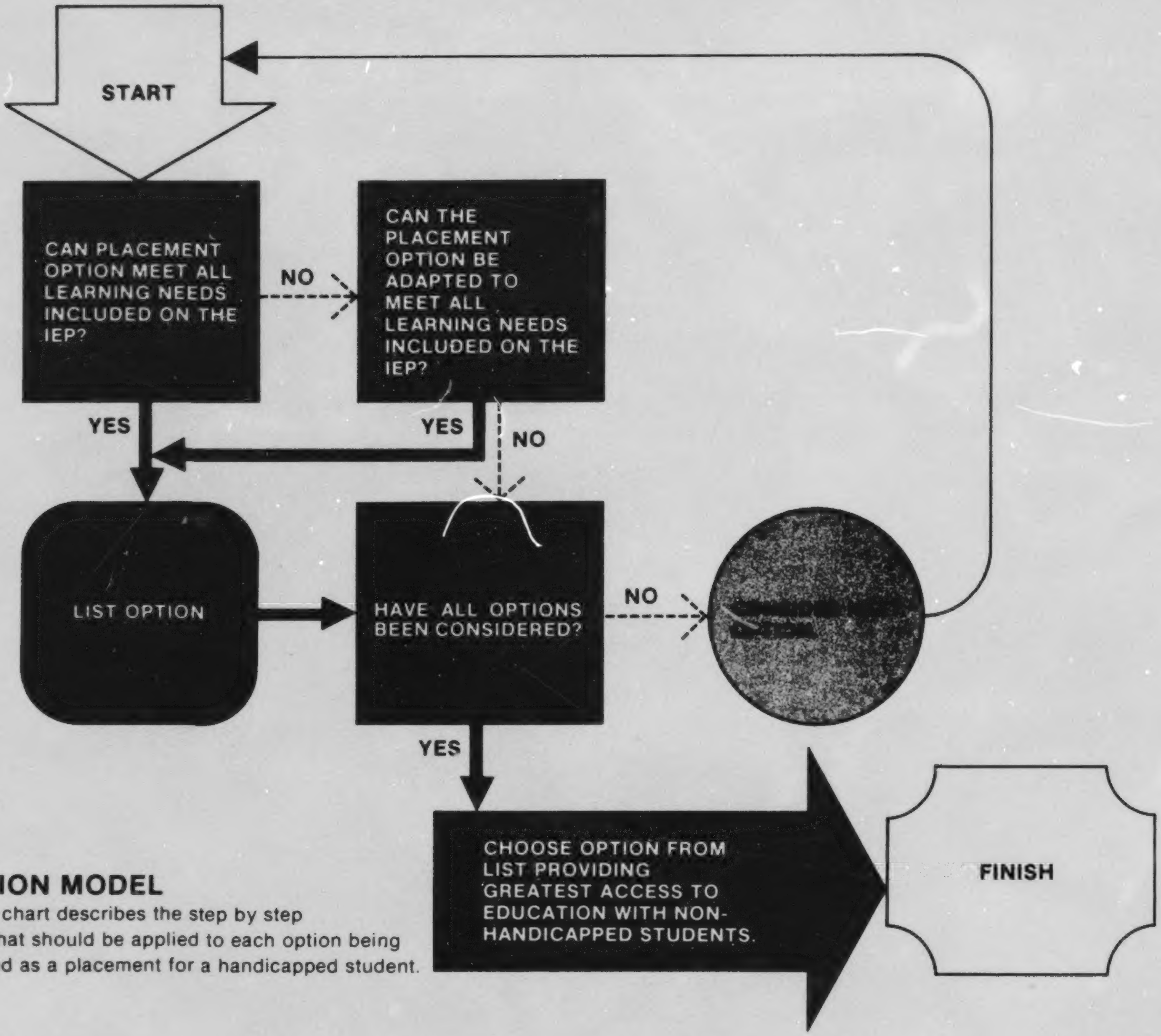

START
CAN PLACEMENT OPTION MEET ALL LEARNING NEEDS INCLUDED ON THE IEP?
NO
CAN THE PLACEMENT OPTION BE ADAPTED TO MEET ALL LEARNING NEEDS INCLUDED ON THE IEP?
YES
YES
NO
LIST OPTION
HAVE ALL OPTIONS BEEN CONSIDERED?
NO
YES
CHOOSE OPTION FROM LIST PROVIDING GREATEST ACCESS TO EDUCATION WITH NON-HANDICAPPED STUDENTS.
FINISH

DECISION MODEL

This flow chart describes the step by step process that should be applied to each option being considered as a placement for a handicapped student.

DECISION SUMMARY CHECKLIST

STUDENT:________________________________ DATE:______________

PLACEMENT OPTION	LEARNING NEEDS						Education with Non-handicapped students		
	Curriculum	Related Services	Media & Materials				Academic	Non-academic	Proximity to home
1.									
2.									
3.									
Recommended Assignment:									

T-118

DECISION SUMMARY CHECKLIST

✓ = meets need
- = does not meet needs
(list missing element)

STUDENT ROSALIE MURPHY

DATE:

PLACEMENT OPTION	LEARNING NEEDS						Education with Non-handicapped students		
	Curriculum	Related Services	Media & Materials	Learning Style	Physical Environment		Academic	Non-academic	Proximity to Home
1. TMR CLASS ELEM SCHOOL							%	%	min.
2. IU M.H. CLASS IN SPEC. FACILITY							%	%	min.

Recommended Assignment:

T-119

WORKSHEETS

OVERVIEW OF MODULE:

A Context for School Psychological Services

Some Major Steps in the Appraisal Process

Instructions: Write down what you consider to be the major phases or steps in the appraisal process from initially identifying "high risk" students from a regular classroom to developing an individualized educational plan:

1.

2.

3.

4.

5.

6.

7.

8.

Major Steps in Appraisal Process for this workshop include:

1. Pre-Referral Phase—

2. Referral/Screening Phase—

3. Pre-Assessment Phase—

4. Comprehensive Individual Assessment Phase—

5. Assessment Report Phase—

6. Educational Planning Phase—

7. Educational Intervention Phase—

WHY STUDENTS FAIL

Please list some major reasons why a student would fail as a function of (1) student characteristics and (2) school system characteristics:

STUDENT CHARACTERISTICS:

SCHOOL SYSTEM CHARACTERISTICS:

PRE-REFERRAL PHASE

3 Steps

1.

2.

3.

What pre-referral guidelines can a teacher follow to objectively identify a student's problems?

1.

2.

3.

4.

5.

6.

7.

W-6

It is important that the procedure for measuring referral problems be

________________________________ and ________________________________.

Two types of referral problem measurement are:

1.

2.

List any examples of academic products or anecdotal data you can think of which can be collected during measurement of referral problems—

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

OBSERVATION

1. Continuous recording—

2. Time sampling—

    a. Frequency recording—
    (Handraising activity)

    b. Interval Recording—

    c. Duration recording—

Determining the Significance of Problem Behavior
(3 important considerations)

1.

2.

3.

W-8

TEACHER'S PERCEPTION

		NON-DEVIANT	DEVIANT
Child's True Status	Non-Deviant		
	Deviant		

PROSPECTIVE VALIDITY FOR REFERRAL

1. Teacher's Past "Track Record"—

2. Inter-teacher Perceptions—

3. Inter-individual Comparison—

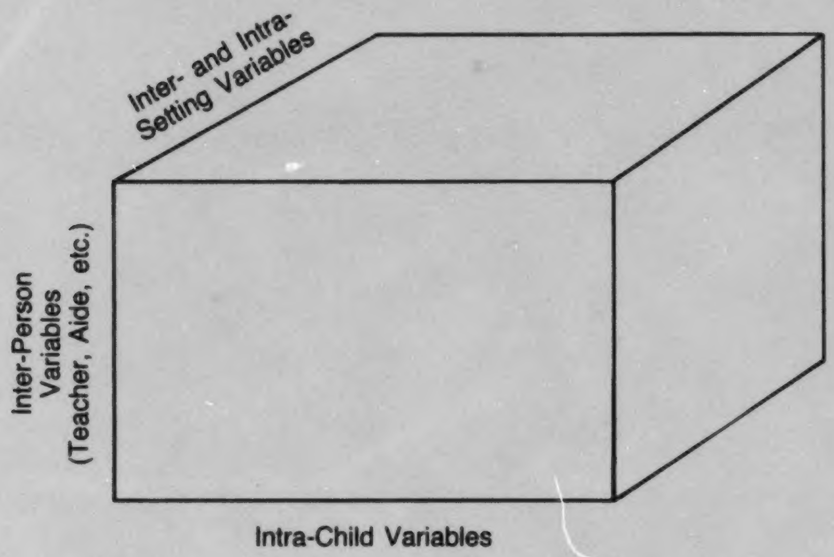
4. Intra- and Inter-Setting Comparisons—

5. Cross-Culture Comparison—

6. Medical and Developmental Histories—

7. Existing Test Data—

A THREE-DIMENSIONAL MODEL OF ASSESSMENT


Inter- and Intra-
Setting Variables
Inter-Person
Variables
(Teacher, Aide, etc.)
Intra-Child Variables

1. **Inter-person:**

2. **Setting effect:**

3. **Intra-child:**

REFERRAL/SCREENING PHASE—(a 5 part process)

1. Identify classroom alternatives—
2. Evaluate referral resources—
3. Screen referrals for significant problems—
4. Designate other educational alternatives—
5. Operationalize a good referral for assessment—

Some Principles of Screening

1. A discrepancy can be determined by a teacher through systematic analysis of school work, classroom behavior, and standardized test scores.
2. Given a basic understanding of the referral/screening process, the classroom teacher can provide valid information for the identification of high-risk students.
3. The classroom teacher is the primary resource person for observing and reporting behavioral strengths and weaknesses.
4. Through the consistent observations by the classroom teacher, other personnel involved with the child (counselor, principal, other teachers) can begin to gather further information that will be pertinent in the determination of the student's problems.
5. Effective communication among parents, teachers, counselors, administrators, and others increases the efficiency and accuracy of the screening procedure.
6. Behavior patterns of students may change from teacher to teacher. Cooperation in the screening process can determine patterns and problem areas.

W-12

GENERATING CLASSROOM ALTERNATIVES

List all the possible options within the classroom you can think of which are available to a classroom teacher or school to intervene with a student **prior** to referral for assessment—

1.

2.

3.

4.

5.

6.

7.

8.

9.

Possible Screening Resources

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

List all the referral data and possible sources of information needed to determine if a student should be referred for a comprehensive assessment:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

W-14

OTHER EDUCATIONAL ALTERNATIVES (prior to special education assessment)

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

Operationalizing a Good Referral

1. All regular education resources have been exhausted.

2. **ASK—**

    1)

    2)

3. Collect and attach all screening data to the district referral form.

4. Tracking system for monitoring student through referral is established.

5. Parent permission obtained.

THE PRE-ASSESSMENT CONFERENCE

Situation:

You have been called to a pre-assessment conference where the following personnel will be present:

referring teacher nurse
school counselor principal

The referring teacher would like to discuss Johnny, who is currently failing third grade reading. Among the many variables that could be discussed, you wish to discuss the key assessment question—"Are the reading assignments given to Johnny at his instructional level?"

On the next page, W-17, write down:

1. What types of data available from conference members would you ask to review as you seek an answer to your assessment question?

   and

2. What additional data, if any, would you recommend be collected in order to answer your assessment question?

THE PRE-ASSESSMENT CONFERENCE

Your assessment question:

"Are the reading assignments given to Johnny at his instructional level?"

1. What types of data **should** be available to the group for review pertaining to your question? (List)

2. What additional data, if any, would you recommend be collected in order to answer your assessment question? (List)

W-18

CHARACTERISTICS OF ASSESSMENT QUESTIONS

Three characteristics of good assessment questions are:

1. The question is relevant to a legitimate concern or problem.
2. The question is answerable.
3. The answer to the question will result in information useful to developing an intervention or determining eligibility.

Below are a list of questions that may be posed during a preassessment conference on a student failing reading. Select the questions you consider good assessment questions (meeting all 3 criteria above) by placing an X by the appropriate number:

___ 1. What is Johnny's current achievement level in reading?

___ 2. What is Johnny's psychomotor functioning?

___ 3. What is Johnny's current level of emotional functioning?

___ 4. What is the nature of Johnny's home environment?

___ 5. What is Johnny's adaptive behavior?

___ 6. What do medical records obtained on Johnny indicate?

___ 7. Is Johnny's father's drinking problem the cause of his school difficulties?

___ 8. Does Johnny exhibit any obvious visual acuity problems?

___ 9. Does Johnny have any friends in the classroom?

___10. Is Johnny eligible for special education services as learning disabled?

GENERATING ADDITIONAL QUESTIONS

Situation:

The results of your curriculum based assessment indicated that Johnny's instructional reading level was beginning third grade, what additional assessment questions can you generate that might lead to the "why" for the referring teacher's problem, "Johnny is failing reading." (List below)

GENERATING ADDITIONAL QUESTIONS

The curriculum based assessment results (Johnny's instructional reading level equals third grade) rule out several major hypotheses and lead us to ask questions about the immediate classroom environment.

These hypotheses are ruled out:
— a handicapping condition
— a possible acuity problem
— lack of task information

Additional Assessment Questions?

Individual Variables

1. Are there some situational emotional factors contributing to Johnny's lack of performance?
   a.) Anxiety about the task?
   b.) Stress about the outcome—either in class or at home?
   c.) Home variables during this period of time that may have influenced production?
   d.) Perceptions regarding peer expectations?

School System Variables

1. Are there variables regarding the teacher-pupil relationship to consider?
2. How are the task demands being presented and followed up?
3. What reading group characteristics can be modified to effect reading production (smaller size, personalities, boy/girl ratio, peer tutoring, seating arrangements)?
4. Are there environmental factors that can be modified to affect performance (noise level, lighting, temperature, distractions)?

EFFECTS OF PRE-ASSESSMENT PHASE

1. Comprehensive individual assessment no longer will be a "standard battery" since assessment questions are tailored to the unique problems of the individual.

2. Multidisciplinary team members are selected on the basis of who can best answer the specific assessment questions in an efficient manner avoiding duplication of efforts.

3. The assessment questions are tied directly to the student's referring problem(s) thus:

   a.) the structure of the report simply answers the questions

   b.) the teacher will get new information about the student

   c.) a logical relationship is built ahead of time between the student's problem(s) and the type of assessment given.

4. Fewer students will need a comprehensive individual assessment because many assessment questions will be answered prior to the assessment phase.

5. Regular education staff will have more immediate access to appraisal expertise in a preventive capacity.

6. The gathering of data pertinent to educational programming will be facilitated.

ASSESSMENT RESOURCES

Situation:
In order to develop a multidisciplinary team, we need to determine who is available to answer key assessment questions. Under each level below list as many available appraisal resources as you can (individuals—such as school counselor, neurologist, etc.; and organizations—mental health/mental retardation agencies, state schools, clinics, etc.)

WITHIN THE SCHOOL SYSTEM:

WITHIN THE COMMUNITY:

WITHIN THE STATE:

W-23

ASSESSMENT RESOURCES CHECKLIST

Key Assessment Questions	School Level					Community Level					State Level		
	School Psychologist	School Counselor	Nurse	Teacher Aide		MH/MR	Private Psychiat. Cl.	Hospital			State School	Deaf/Blind Project	
1.													
2.													
3.													
4.													
5.													
6.													
7.													
8.													
9.													
10.													

W-24

FACTORS INFLUENCING DECISION MAKING

Situation:

Appraisal personnel have to make many decisions regarding a referral problem. Initially, the teacher must decide whether or not to refer a student. Is the behavior deviant enough? Could something else be done in the classroom? Appraisal personnel have to select tests, make hypotheses regarding problems, interpret test results, make recommendations for behavioral and educational intervention. Decisions are made individually and in groups.

List below as many factors as you can that influence the decisions made about a student from the time of initial teacher referral through developing the I.E.P.

W-25

IDENTIFYING PERSONAL ATTITUDES

Participant Directions:

This worksheet is to be individually completed. It is for your personal use and should not be shared with others.

You may or may not be exposed to individuals exhibiting characteristics described below. Read each situation. Circle the number that best describes your "degree" of comfort in dealing with that particular individual in the educational setting.

	Uncomfortable		Somewhat Comfortable		Comfortable
1. Jan is defiant, stubborn, argumentative, and disobedient.	1	2	3	4	5
2. Bill is unable to control any of his limbs and maneuvers around the school in a wheelchair. Someone must move the chair for him.	1	2	3	4	5
3. Susan is oversensitive and easily bursts into tears.	1	2	3	4	5
4. Tom's face was severely disfigured in an automobile accident.	1	2	3	4	5
5. Jerry wears a leg brace and uses crutches to walk. He is quite independent, requiring little assistance from others.	1	2	3	4	5
6. Janet has a mild hearing loss and hears best when she sits in the front of the room.	1	2	3	4	5
7. David has neither bladder nor bowel control. At frequent intervals, he must be taken to the bathroom.	1	2	3	4	5
8. Donald is totally blind.	1	2	3	4	5
9. Linda needs to have things explained over and over again. Although it takes longer, she appears to learn everything the others do.	1	2	3	4	5
10. About once an hour, Greg stares upward at the ceiling for several seconds and loses consciousness. Otherwise he is developing normally.	1	2	3	4	5

Identifying Personal Attitudes, continued

	Uncomfortable		Somewhat Comfortable		Comfortable
11. Alex does not hear speech unless it is shouted.	1	2	3	4	5
12. Jim is sexually precocious. He uses obscene language and frequently masturbates.	1	2	3	4	5
13. Betty does not pronounce all of her speech sounds correctly but can be understood.	1	2	3	4	5
14. Several times a day, Larry will fall to the floor in a convulsion, which may last for several minutes.	1	2	3	4	5
15. Pat's speech is laboriously slow, tortured, jerky and indistinct.	1	2	3	4	5
16. Sandy's limbs are in a slight but continual tremor that becomes pronounced when she is nervous or excited.	1	2	3	4	5
17. Harriet is very unaware of her environment, does not speak at all, and drools excessively. She is on a program to learn self-help skills.	1	2	3	4	5
18. Ben seems to find it difficult to distinguish between certain letters of the alphabet.	1	2	3	4	5

SELECTING A BATTERY OF TESTS

Situation:

You have received a referral of a third grade male, age 9.1, whose major problem is reading. The teacher reports he is reading at approximately the 1.1 grade level. He is not a behavior problem.

List below the test instruments you would select to administer to the referred student:

FIVE STEPS IN BUILDING A COMPREHENSIVE PICTURE

1.

2.

3.

4.

5.

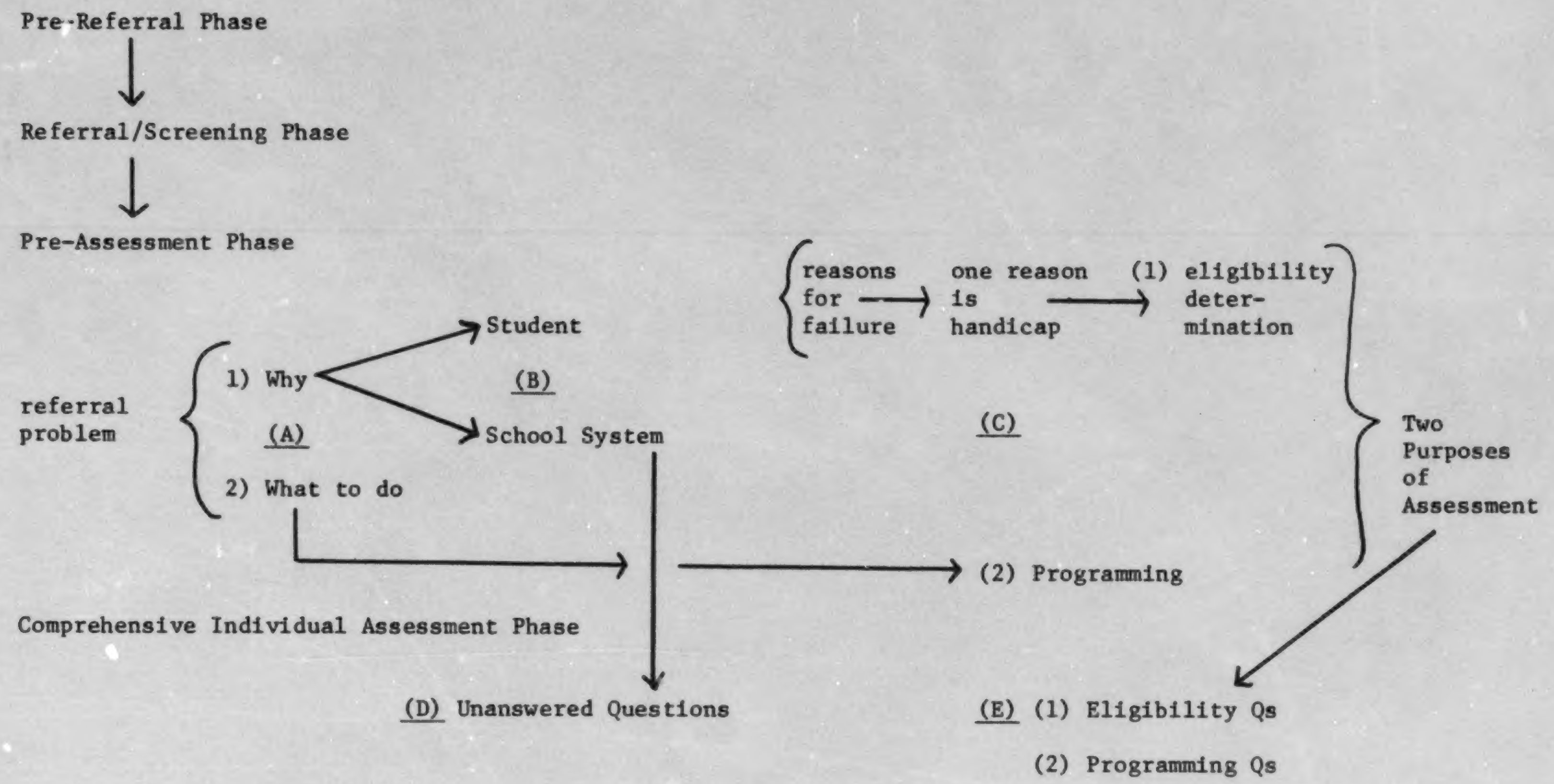
MENTAL RETARDATION

"'Mental Retardation' means significantly sub-average general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period, which adversely affects a child's educational performance." (P.L. 94-142)

Determine how many measurable elements are in the definition and list below:

OVERVIEW

ORIGINS OF ASSESSMENT QUESTIONS


Pre-Referral Phase
Referral/Screening Phase
Pre-Assessment Phase
referral problem
1) Why
(A)
2) What to do
Student
(B)
School System
reasons for failure
one reason is handicap
(1) eligibility determination
(C)
Two Purposes of Assessment
(2) Programming
Comprehensive Individual Assessment Phase
(D) Unanswered Questions
(E) (1) Eligibility Qs
(2) Programming Qs

BASIC CONCEPTS OF DEVELOPMENTAL ASSESSMENT

Four types of deviations

1. normal—

2. general developmental delay—

3. domain specific—

4. within domain

TYPES OF DEVELOPMENTAL ASSESSMENT PROCEDURES

1. **Psychometric tests**—examples

2. **Criterion referenced tests**—examples

3. **Piagetian based scales**—examples

4. **Rating scales**—examples

5. **Observational procedures**—examples

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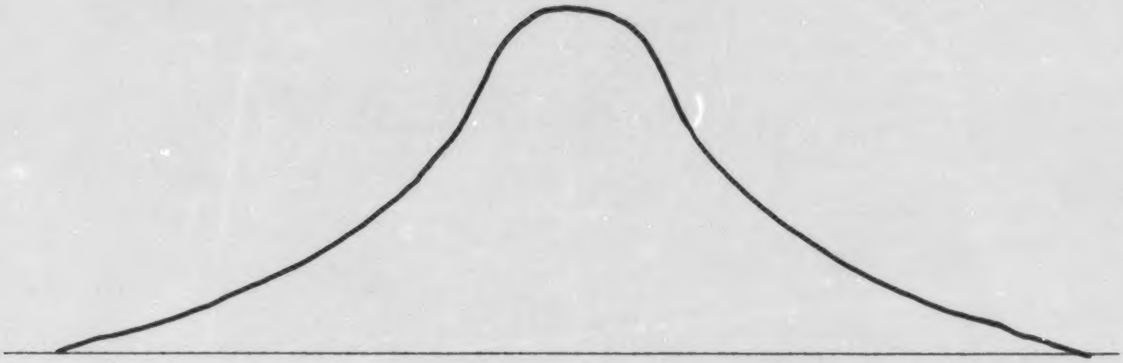
PSYCHOMETRIC TESTS



NORMAL CURVE

W-32A

WORKSHEET FOR COMPARING THE SCALED SCORES WITH THE MEAN SCALED SCORES ON THE WISC-R

WISC-R SUBTEST	EXAMINEE'S SUBTEST SCALED SCORE	DEVIATION FROM MEAN	SIGNIFICANCE LEVEL
Information	10	0	Not significant
Comprehension	6	–4	.05
Arithmetic	8	–2	Not significant
Similarities	5	–5	.05
Vocabulary	8	–2	Not significant
Picture Completion	10	0	Not significant
Picture Arrangement	11	+1	Not significant
Block Design	15	+5	.05
Object Assembly	12	+2	Not significant
Coding	4	–6	.05

ADAPTED FROM SATTLER (1974)

TABLE C-7. Differences Required for Significance When Each WISC-R Subtest Scaled Score Is Compared to the Mean Scaled Score for Any Individual Child

	5 Verbal Scale Subtests[a]		*6 Verbal Scale Subtests*		*5 Performance Scale Subtests*[b]		*6 Performance Scale Subtests*	
Subtest	*.05*	*.01*	*.05*	*.01*	*.05*	*.01*	*.05*	*.01*
Information	2.81	3.37	2.94	3.50		—	—	—
Similarities	3.07	3.68	3.22	3.84		—	—	—
Arithmetic	3.14	3.76	3.30	3.93		—	—	—
Vocabulary	2.74	3.29	2.86	3.41		—	—	—
Comprehension	3.15	3.78	3.32	3.95	—	—	—	—
Digit Span	—	—	3.42	4.07	—	—	—	—
Picture Completion	—			—	3.38	4.06	3.55	4.22
Picture Arrangement	—			—	3.59	4.31	3.78	4.50
Block Design	—	—	—	—	2.92	3.50	3.03	3.61
Object Assembly	—	—	—	—	3.82	4.58	4.03	4.80
Coding	—	—	—	—	3.70	4.43	3.89	4.64
Mazes	—	—	—	—	—	—	4.03	4.80

	10 Subtests[c]		*11 Subtests*[a]		*11 Subtests*[b]		*12 Subtests*	
Subtest	*.05*	*.01*	*.05*	*.01*	*.05*	*.01*	*.05*	*.01*
Information	3.25	3.80	3.29	3.85	3.30	3.86	3.34	3.89
Similarities	3.60	4.21	3.65	4.27	3.66	4.28	3.71	4.32
Arithmetic	3.69	4.32	3.75	4.38	3.76	4.39	3.81	4.44
Vocabulary	3.15	3.69	3.19	3.73	3.20	3.74	3.24	3.78
Comprehension	3.71	4.35	3.77	4.41	3.78	4.42	3.83	4.47
Digit Span			3.89	4.55			3.96	4.61
Picture Completion	3.86	4.52	3.92	4.58	3.93	4.59	3.98	4.64
Picture Arrangement	4.14	4.85	4.21	4.92	4.22	4.93	4.28	4.99
Block Design	3.20	3.75	3.24	3.79	3.25	3.80	3.29	3.83
Object Assembly	4.45	5.22	4.53	5.30	4.54	5.31	4.61	5.37
Coding	4.29	5.02	4.36	5.10	4.37	5.10	4.43	5.17
Mazes	—	—	—	—	4.54	5.31	4.61	5.37

Note. Table C-7 shows the minimum deviations from an individual's average subtest scaled score that are significant at the .05 and .01 levels.

The following formula, obtained from Davis (1959), was used to compute the deviations from average that are significant at the desired significance levels: $D = CR \times S_{m((T/m)-Z_1)}$, where D is the deviation from average, CR is the critical ratio desired, and $S_{m((T/m)-Z_1)}$ is the standard error of measurement of the difference between an average subtest scaled score and any one of the subtest scaled scores that entered into the average. The standard error of measurement can be obtained by the following formula:

$$S_{m((T/m)-Z_1)} = \sqrt{\frac{S_{mT}^2}{m^2} + \left(\frac{m-2}{m}\right) S_{mZ_1}^2}$$

where S_{mT}^2 is the sum of the squared standard errors of measurement of the m subtests, m is the number of subtests included in the average, T/m is the average of the subtest scaled scores, and $S_{mZ_1}^2$ is the squared standard error of measurement of any one of the subtest scaled scores. The critical ratio for the 5 percent level ranges from 2.58 to 2.87, and that for the 1 percent level from 3.09 to 3.34, depending on the number of subtests. These critical ratios were obtained by use of the Bonferroni inequality, which controls the familywise error rate at .05 (or .01) by setting the error rate per comparison at .05/m (or .01/m).

Reprinted with permission from J. M. Sattler, Assessment of Children's Intelligence and Special Abilities, 1982, 2nd ed.

Worksheet for Comparing the Average of Several Subtest Scaled Scores with One of the Subtest Scores Included in the Average

Subtest	Examinee's Subtest Scaled Score	Deviation From Average	Significance Level
Information	10	1.1	Not significant
Comprehension	6	2.9	Not significant
Arithmetic	8	.9	Not significant
Similarities	5	3.9	.05
Vocabulary	8	.9	Not significant
Picture Completion	10	1.1	Not significant
Picture Arrangement	11	2.1	Not significant
Block Design	15	6.1	.01
Object Assembly	12	3.1	Not significant
Coding	4	4.9	.05
Sum of scaled scores	89		
Average scaled scores	8.9		

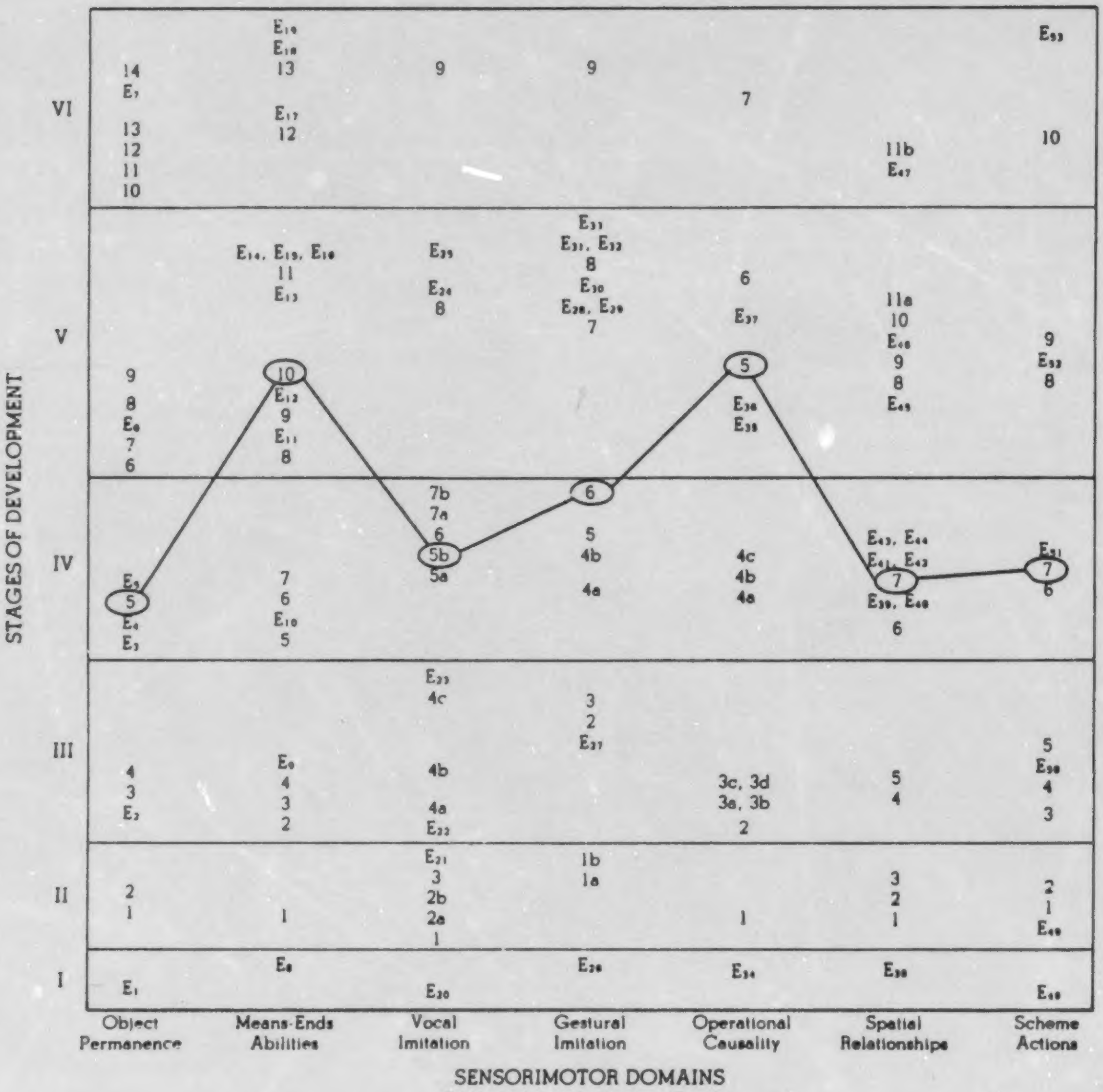
NOTE: SIGNIFICANCE LEVELS OBTAINED FROM TABLE C-7 IN APPENDIX (SATTLER, 1982)

ADAPTED FROM DAVIS (1959) AND SATTLER (1974)

EXPECTANCY TABLE FOR PERCENTAGE OF READING MASTERY FOR CHILDREN IN GRADE LEVEL 1.5

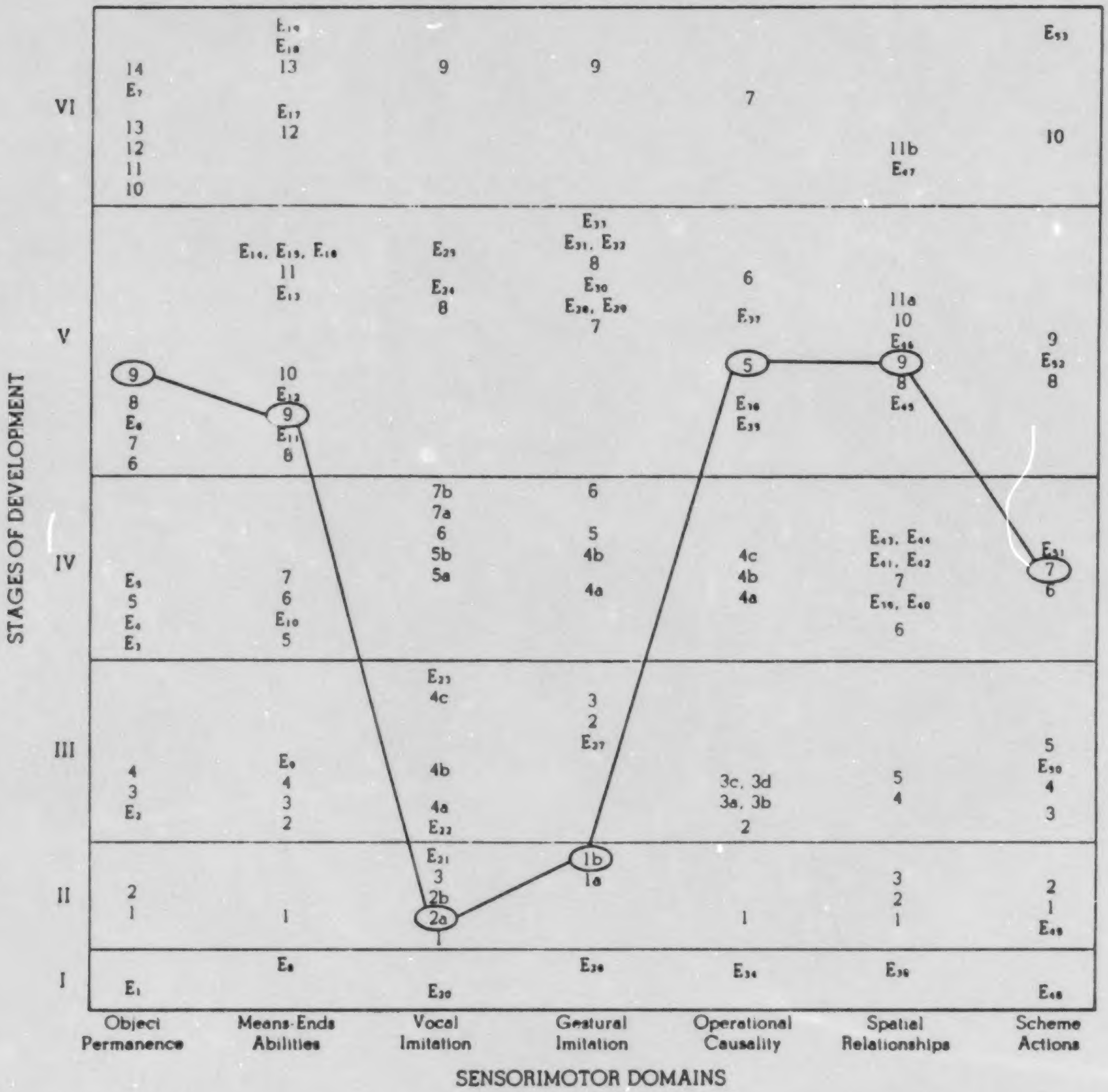
Scores	Grade Level (Mastery)					
	P	K	1.0	1.5	2.0	2.5
90-100						100
80-89					100	90
70-79				100	90	80
60-69			100	90	80	70
50-59		100	90	80	70	60
40-49	100	90	80	70	60	50
30-39	90	80	70	60	50	40
20-29	80	70	60	50	40	30
< 20	70	60	50	40	30	20

Mean = 50



Profile of abilities for Andrew (Case C).

Reprinted with permission from Dunst, C. J. A clinical and educational manual for use with the Uzgiris and Hunt scales of infant psychological development. Baltimore: University Park Press, 1980.



Profile of abilities for Amanda (Case I).

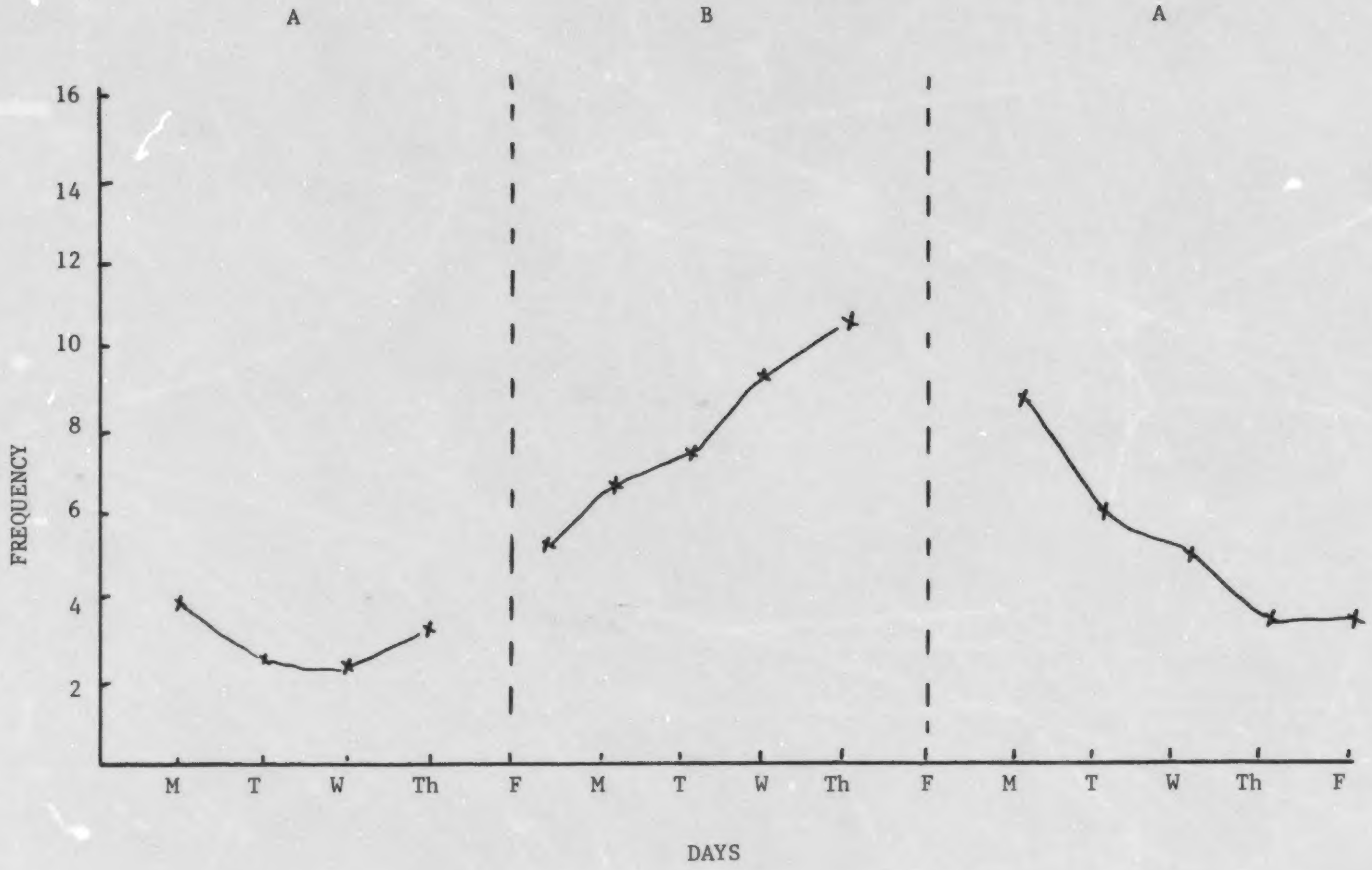
Reprinted with permission from Dunst, C. J. A clinical and educational manual for use with the Uzgiris and Hunt scales of infant psychological development. Baltimore: University Park Press, 1980

RATING SCALES—

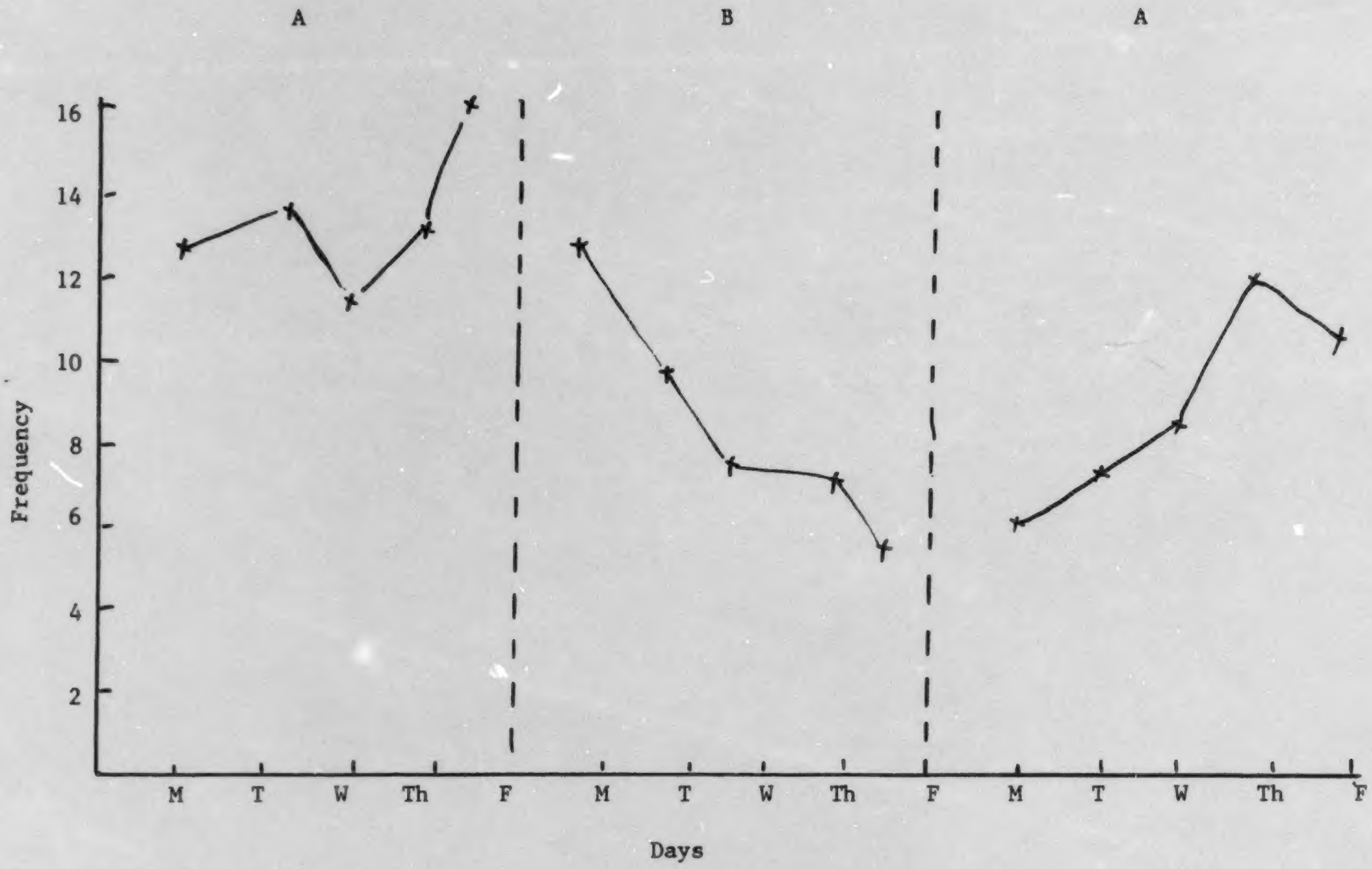
Four Typical observation techniques:

1. frequency counts—
2. checklists—
3. anecdotal records—
4. diary/journal descriptions—

TARGET BEHAVIOR: ON-TASK PERFORMANCE



TARGET BEHAVIOR: INAPPROPRIATE TALKING IN CLASS



Three trends have dominated educational decision making*

1. **Romanticism—**

2. **Cultural Transmission—**

3. **Progressivism—**

*Refer to Module III Resource material for additional information.

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The Three Basic Educational Ideologies, Developmental Perspectives, and Instructional Derivatives

	Philosophical-Educational Ideologies		
Corollary Issues	**Romanticism**	**Progressivism**	**Cultural Transmission**
Psychology	Maturational	Cognitive-Developmental	Associationistic-Learning/Environmental
Concept of Development	Genetically Predetermined and Ordered	Sequential, Hierarchical, and Integrative	Additive
Nature of Motivation	Intrinsic/Static	Intrinsic/Metastatic	Extrinsic/Metastatic
Function of Education	Self-Expression	Knowledge Acquisition (Process)	Skill Transmission (Products)
Nature and Role of the Child	Active: Self-Directed	Active: Initiates Interaction/Engages in Active Experimentation	Passive: Respondent to Cues and Discriminative Stimuli
Nature and Content of the Curriculum	Self-Directed/Enhance Emotional Expression and Curiosity	Enhance Organism-Environmental Encounters/Resolvable Problem Solving Tasks	Programmed Instruction/Teach Skills, Facts, Behaviors, etc.
Mode of Instruction	Unstructured Free-Play	Guided Learning	Directed Learning
Role of Teacher	Create Warm, Positive Environment	Structure Content and Order of Experiences	Engineer Learning Environment
Mode of Child-Teacher Interaction	Unidirectional	Transactional	Unidirectional
R: Responds to	T_R C	T C	C_R T

SPECIAL CONSIDERATIONS FOR INFANTS AND PRESCHOOLERS

(3 models)

1. **Diagnostic Treatment Model—**

2. **Ability-Enrichment Model—**

3. **Assessment-Intervention Model—**

TABLE 1

1. *The Developmental Therapist,* Second Edition, (Banus, Kent, Norton, Sukiennicki & Becker, 1979).
2. *Learning Accomplishment Profile.*
3. *Guide to Early Developmental Training.*
4. *Pennsylvania Training Model:* Individual Assessment Guide, Revised Edition, (Sommerton-Fair & Turner, 1979).
5. *Portage Project Checklist.*
6. *The Developmental Resource,* Volumes 1 & 2, (Cohen & Gross, 1979).

The Developmental Resource, Vols. 1 & 2, are particularly valuable resources. These volumes provide developmental sequences for many more domains than are usually included in individual tests and checklists, drawing data from research studies as well as assessment tools. For example, in presenting the sequence for the development of visual focus and fixation, 10 behaviors from birth through five months are noted. These behaviors are taken from five research studies and three developmental scales.

Table 2

Selected Vision Screening Tests

1. *Project APT's Vision Screening.* Project APT has developed an easy to use procedure that permits the examiner to determine whether children are using their eyes in a smooth, coordinated manner and to screen for distance acuity. The results of either of these tests will identify very young children or severely handicapped children in need of additional visual evaluation and for whom some measures may be inappropriate due to the visual demands of the stimulus events. The procedures for Project APT's Vision Screening are included in Appendix A.

2. *The Preschool Vision Test.* This test uses picture symbols such as a Christmas tree, a telephone, a birthday cake and a horse displayed on individual cards to determine distance acuity in children. The cards are held at 15 feet and children who function at the three year level can usually respond.

3. *The Flashcard Test for Children.* This test has been referred to by several names, such as *The New York Flashcard Test* and the *N.Y. Lighthouse Vision Screening* and has been used successfully in screening vision in children who function as young as two years of age. The test uses three basic symbols that need only to be matched to like symbols if identifying labels are unknown to the testee. The test is described in more detail in Appendix A.

4. *Parsons Visual Acuity Test.* Based on the concept of errorless learning, this test will screen far and near point vision in children who function developmentally as young as 18 months. The examiner using this test must have both the equipment and the training to provide assessment.

5. *Other Sources.* Many other vision screening tests are commercially available and can be used by psychologists with limited training. It is beyond the scope of this module to describe these in detail. The interested reader is referred to the following sources.

   5.1 *Vision Impairment in theSchools* (Harley & Lawrence, 1977) Assessment of visual impairment (DuBose, 1981). In *Psychoeducational Assessment of Preschool & Primary Aged Children* (Paget & Bracken, 1981).

   5.2 *Infant Sensory Assessment: Vision.* (Salapatek & Banks, 1978) In *Communicative and Cognitive Abilities—Early Behavioral Assessment.* (Minifie & Lloyd, 1978).

   5.3 *Infant Perception: From Sensation to Cognition. Vol. 1, Basic Visual Processes.* (Cohen & Salapatek, 1975).

The use of traditionally experimental procedures for examining infant perception is gaining momentum as diagnosis and treatment of visual and hearing dysfunction become recognized as responsibilities of assessment personnel. Several recent sources that describe research findings on the development and assessment of visual capacities are listed in the references above.

Table 3

Selected Readings on Screening and Assessment of Hearing

1. *Assessment of Auditory Functioning of Deaf-Blind and Multihandicapped Children* (Kukla & Connally, 1978).
2. Assessment of the Hearing Impaired (Shah, 1981) in *Psychoeducational Assessment of Preschool and Primary Aged Children* (Paget & Bracken, 1981).
3. Working with Sensorily Impaired Children, Part II: Hearing Impairments (Dubose, 1979). In *Educating Young Handicapped Children* (Garwood, 1979).
4. Behavioral assessment of Auditory Function in Infants (Wilson, l978). In *Communicative and Cognitive Abilities—Early Behavioral Assessment* (Minifie & Lloyd, 1978).

Table 4

Impact Concerns

Impairment	**Impact**	**Key Sources**
Blindness	Delays in gross and fine motor behavior, particularly in locomotion, throwing and catching objects. Delays in social interaction and emotional development.	Fraiberg, S. *Insights From the Blind,* New York: Basic books, 1977. Warren, D. *Blindness and Early Childhood Development.* New York: American Foundation for the Blind, 1979.
Deafness	Delays in acquisition of language; some social skill delays.	Schlesinger, H.S. & Meadow, K.P. *Sound and Sign.* Berkeley: University of California Press, 1972.
Physical Impairments	Delays in motor skill achievement with increased possibility of impaired vision hearing or cognitive skills.	Abercombie, M. Some notes on spatial disability, movement, intelligence quotient, and attentiveness. *Developmental Medicine and Child Neurology,* 1968, *10,* 206. Langley, M.B. Working with young physically impaired children: Part A. The nature of physical handicaps and Part B. Educational programming. In S.G. Garwood (Ed.) *Educating Young Handicapped Children,* Germantown, Md. Aspen Systems, 1979.
Severe Behavioral and Emotional Problems	Delays in social, emotional, communication, cognitive and selected motor skills.	Ornitz, E., Guthrie, D. & Farley, A. The early development of autistic children. *Journal of Autism and Childhood Schizophrenia,* 1977, *3,* 207-229.

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SELECTION OF FORMAL TESTS FOR INFANTS AND PRESCHOOL CHILDREN

For a more complete list see *Infant Assessment: Issues and Applications* (Darby & May, 1979), *Screening Growth and Development of Preschool Children* (Stangler, Huber, & Routh, 1980) or *Infant and Preschool Assessment Techniques: Reliability, Validity and Utility* (Dunst, in press).

Table 5
Selected Tests for Infants and Preschoolers

Assessment Function	Test
Identification/ Placement	Infant Intelligence Scale
	Bayley Scales of Infant Development
	Gesell Developmental Schedule (Rev. Ed.)
	Griffiths Mental Development Scale
	McCarthy Scales of Children's Abilities
	Woodcock Johnson Psychoeducational Battery
	Merrill Palmer Scales of Mental Development
Intervention/ Programming	Portage Project Checklists
	Uniform Performance Assessment System
	Learning Accomplishment Profile and Infant Learning Accomplishment Profile
	Hawaii Early Learning Program
	Diagnostic Inventory of Early Development
	Ordinal Scales of Psychological Development
	Casati-Lezine Scales
	Developmental Indicators for the Assessment of Learning
	Developmental Activities Screening Inventory

Table 8
The Classification of Exceptional Learners

Handicap	Legal Definition	Functional Definition
Deaf/Blind	"Concomitant hearing and vision impairment, the combination of which causes such severe communication and other developmental and educational problems that they cannot be accommodated in special education programs solely for deaf or blind children."	The majority of the deaf-blind persons served under this legal definition are nonverbal and have some usable vision. Additionally many have moderate to severe retarded development in other behavioral domains. They need intensive educational programs that focus on total communication and acquisition of basic skills. Some can be served in programs for severely or multihandicapped, others can be served in classes for the visually impaired or hearing impaired if additional support is available.
Orthopedically Impaired	"A severe orthopedic impairment, which adversely affects a child's educational performance. The term includes impairments caused by congenital anomaly (e.g., club-foot, absence of some member, etc.), impairments caused by disease (e.g., poliomyelitis, bone tuberculosis, etc.) and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns which cause contractures").	Severe mobility problems occur frequently. Intelligence can vary from severe retardation to giftedness. They are likely to have additional hearing or vision problems that require special attention. They fit into almost any educational setting that is supportive and able to provide the extra adaptive equipment and help needed to meet physical and educational requirements.

Table 8

THE CLASSIFICATION OF EXCEPTIONAL LEARNERS (CONT.)

Handicap	Legal Definition	Functional Definition
Multi-handicapped	"Concomitant impairments such as mentally retarded/blind, mentally retarded-orthopedically impaired, etc., the combination of which causes such severe educational problems that they cannot be accommodated in special education programs solely for one of the impairments. The term does not include deaf-blind children.	The presence of additional impairments has a multiplicative rather than an additive effect on children. There are no set guidelines that specify which handicap determines placement. Mobility and severe sensory loss are likely to predominate with the degree of retardation determining placement with a categorical program. The needs of multihandicapped students require a generic teacher with training in all developmental areas and handicapping conditions. Additionally support from a transdisciplinary staff is required.
Mentally Retarded	"Significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period, which adversely affects a child's educational performance."	Mentally retarded persons function in a manner that is expected of persons at a young chronological age. Their performance on tasks of perception, cognition and language are likely to reflect these differences. They may be served in any setting that provides individualized educational instruction and the support services needed to help the person participate in the group in an acceptable manner.

Table 9
CHARACTERISTICS AND IMPACTS OF HANDICAPPING CONDITIONS

DEAF-BLIND

Characteristics	Impacts
1. Significant visual impairment, usually resulting from cataracts. With successful extraction, vision is usually the major means for receiving sensory input.	1. If visual acuity measures 3/200 or better, then appraisal and intervention through vision (pictures/print) should be explored.
2. Significant hearing impairments, most frequently characterized by (1) severe sloping impairments with hearing in the low frequencies only, or (2) flat 60 to 80 db level hearing loss in the better ear over the speech range.	2. Early amplification, training, and intelligence are the major factors that determine the extent to which auditory input can be expected to impact on skill acquisition. The presence of a hearing loss from birth greatly affects the acquisition of symbolic language, particularly speech. Deaf/Blind persons may use their hearing to keep them aware of environmental sounds and sources of danger, to supplement their understanding of signs and speech, or as the major source of language. Because of severe impairments many of the deaf/blind persons in educational settings today are using hearing only as a means of environmental contact.
3. Significant retardation in intelligence, language, motor, and social behavior.	3. Researchers vary in their reports of the impact of deaf/blindness on development. Diebold, Curtis, and Dubose 1978(a); 1978(b); reported the following mean performance scores on a population of deaf/blind children at 118 months:

	Months
Cognitive	25.78
Receptive language	21.87
Expressive language	17.75
Gross Motor	33.46
Fine Motor	33.62
Social	38.44

Table 9 (cont.)
CHARACTERISTICS AND IMPACTS OF HANDICAPPING CONDITIONS

ORTHOPEDICALLY HANDICAPPED

Characteristics	Impacts
1. Significantly impaired movement.	1. The placement and severity of brain damage is a determinant of the degree of impaired movement.
2. Depending on the nature of the impairment, visual problems are likely to be present.	2. Problems in figure ground perception, shape discrimination, depth perception, acuity and field responsivity are likely to impact on performance.
3. Hearing, speech and language problems are likely to be present.	3. Learning losses are more likely to occur in cerebral palsied children. Mecham (1966) reported that 70-80% of cerebral palsied children have speech involvement. Additionally, content of language is weak in conceptualization due to limited experience base. These findings suggest a severe to profound impact on behavior traditionally appraised for educational purposes.
4. Mild to moderate health related impairments, most frequently characterized by heart, kidney and crippling conditions.	4. The presence of a heart problem is usually apparent from birth with correctional surgery performed as needed. A few children have also had cerebral palsy and in some cases, kidney problems have appeared with increased age. In general, health related problems have not had a major impact on the development of skills related to educational progress.

Table 9

CHARACTERISTICS AND IMPACTS OF HANDICAPPING CONDITIONS (CONT.)

MULTIHANDICAPPED

CHARACTERISTICS	IMPACTS
1. At least two impairments are present, each requiring special services.	1. The impact of the two or more impairments will vary in terms of degree and type. The presence of more than one impairment has a multiplicative effect on the person. The number of disciplines needed to plan and administer educational programs increases with each impairment.
2. Mental retardation is a likely impairment.	2. When a perceptual, physical or emotional problem is present, the likelihood of retardation being present is much greater than in the general population.

Table 9 (cont.)
CHARACTERISTICS AND IMPACTS OF HANDICAPPING CONDITIONS

SEVERELY MENTALLY RETARDED

Characteristics	Impacts
1. Performance on standardized tests is likely to be four standard deviations below the mean.	1. The presence of a low IQ or MA score is determined early in life and is likely to be a major factor in determining educational placement. Skills will be acquired slower, peak much later, and at a lower level.
2. Performance in the area of adaptive behavior is likely to be four standard deviations below the mean.	2. The presence of severe deficits in those behaviors the community expects of its members will require that one have help in meeting basic physical needs, making decisions and supporting oneself in meeting life demands.

Selection of Formal Measures

(6 important factors)

1.

2.

3.

4.

5.

6.

Testing Deaf/Blind Persons

1.

2.

3.

4.

Testing Orthopedically Impaired Persons

1.

2.

3.

4.

Testing Multihandicapped Persons

1.

2.

3.

4.

5.

Testing Severely Mentally Retarded Persons

1.

2.

3.

4.

5.

(See Table 10 on the next page)

Table 10

Selected Instruments for Assessing Severely Handicapped Persons

Identification/Placement	Bayley Scales of Infant Development
	Cattell Infant Intelligence Scale
	McCarthy Scales of Children's Abilities
	Woodcock Johnson Psychoeducational Battery
	Griffiths Mental Development Scale
	Columbia Mental Maturity Scale
	Gesell Developmental Schedules
	Merrill Palmer Scale of Mental Tests
	Wechsler Preschool and Primary Scale of Intelligence
	Wechsler Intelligence Scale for Children-Revised
	AAMD Adaptive Behavior Scale
	Stanford Binet Intelligence Scale
	Bathazar Scales of Adaptive Development
	Pictorial Test of Intelligence
	Callier Azusa Scale
	Oregon Student Progress Record
	Pennsylvania Training Model
	Maxfield-Buchholz Scale of Social maturity for Preschool Blind Children
	Vineland Social Maturity Scale
Intervention/Programming	West Virginia Assessment System
	Behavior Characteristic Progression
	Guide Curriculum
	Lexington Developmental Scale
	TARC Assessment System
	Uniform Performance Assessment System
	Haeussermann's Developmental Potential for Preschool Children
	Lakeland Village Adaptive Behavior Grid
	Developmental Activities Screening Inventory
	Ordinal Scales of Psychological Development

Comprehensive Report

Write your definition of a comprehensive report below:

FORMAT ONE
CHRONOLOGY OF APPRAISAL PROCESS

Demographic Data

Definition of Problem

Student Work Samples or Description thereof

Alternatives Tried/Supporting Data

Screening/Referral Data

Assessment Questions

Answers

Summary

FORMAT TWO
UNANSWERED QUESTIONS

Demographic Data

Definition of Problem

Known Data

Three Sources of Assessment Questions

a. Unanswered questions from known data

b. Eligibility criteria questions

c. Educational programming questions

Answers

Recommendations

FORMAT THREE

STUDENT/SCHOOL SYSTEM CHARACTERISTICS

Demographic Data

Definition of Problem

Known Data

Student Characteristics

Physical

Psychological

Cognitive

Social System

School System Characteristics

Task Demands

Classroom Environment

Teacher/Peer Considerations

Assessment Questions

Student Characteristics

Physical

Psychological

Cognitive

Social System

FORMAT THREE (continued)

School System Characteristics

- Task Demands
- Classroom Environment
- Teacher/Peer Considerations

Answers

Student Characteristics

- Physical
- Psychological
- Cognitive
- Social System

School System Characteristics

- Task Demands
- Classroom Environment
- Teacher/Peer Considerations

Recommendations

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REWRITING REPORT STATEMENTS

Below is a list of assessment report statements. Assume a parent has read the statements and does not understand them. Rewrite to clarify for the parent:

1. On the Bender Gestalt he made 6 errors which was 2½ years below his chronological age.

2. Visual-perceptual-motor skills are considered intact.

3. His receptive language is better than his expressive language.

4. His reading grade level score was significantly below his mental age.

EDUCATIONAL PLANNING PHASE

I.E.P. Team identifies needs of a child recommended for placement in five major areas:

1.

2.

3.

4.

5.

ACTIVITY
IDENTIFICATION OF NEED

DIRECTIONS: The case study materials on Mark Sampler correspond to the kinds of data that are recommended for consideration in identifying student needs. You as a group are to use the case study data to define the student's needs.

DEFINING STUDENT PROBLEMS

Academic Problems:
Problems Related to Classroom Procedures:
Behavior Problems:

MARK SAMPLER—COMMENTS FROM TEACHER INTERVIEW

1. What is the problem that this student is experiencing in your classroom? Delineate specific, observable behaviors.

   —Does not complete word problems in math
   —Distractible
   —Can't answer questions at end of chapters in the social studies book

2. What do you see as the student's particular strengths?

   —Attends to classroom discussions
   —Gets along well with other students
   —Does well with computation problems

3. What methods have you tried to solve the problem? How did the student respond?

   —Gave him extra time to complete work
   —Have him seated next to teacher's desk
   —Neither method seems to be working—problems still exist in the same degree.

MARK SAMPLER—TEACHER NOTATIONS FROM INTERVIEW WITH STUDENT

1. What makes being in this class comfortable for you?

   —Likes other kids
   —Likes science experiments
   —Likes doing math centers when tangible rewards are given out

2. What makes being in this class uncomfortable or difficult for you?

   —Doesn't like math word problems
   —Social studies book is boring
   —Would like to get more stars on papers

3. How have you tried to solve your problem(s)?

   —Try to be good
   —Mother helps with math homework

MARK SAMPLER—EXAMINATION OF STUDENT WORK SAMPLES

1. *Is the level of work given the student appropriate?*

Samples of word problem worksheets in math:
—Appeared that he misunderstood the problems
—Reading level appropriate for word recognition, not comprehension
—Confused as to what operation to use

Social Studies book:
—Reading level appropriate for word recognition, not comprehension

Worksheets of questions from social studies chapters:
—Answers questions with "yes" or "no" regardless of appropriateness
—Questions require some sequencing, which is difficult for Mark

2. *Is the work given the student tailored to his/her learning style?*

Mark seems to learn best when information is presented orally, in small steps, with a visual demonstration. Sequencing of ideas is difficult for him. The work given Mark is mostly written, requiring written responses.

3. *Is there evidence to show that the student understands what is required of him/her?*

Yes. Mark appears to understand the directions given.

4. *How is feedback regarding the work given to the student?*

Math worksheets:
—Teacher circles the cue words signaling the operation to be used
—Most remarks written on the work say, "Take your time."

Social studies question worksheets:
—Most remarks written on the work say, "See me"; sometimes large question marks are marked on the page.

5. *Do error patterns indicate specific weaknesses? What are they?*

Yes. They are mostly reading comprehension difficulties, particularly sequencing of ideas and determining important words.

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MARK SAMPLER—OBSERVATION COMMENTS

Classrom Information:

Organization	Management	Presentation	Practice	Post-Testing
—some large group activities —some learning centers in math —some small group work in math —students seated very close to each other —classroom routine very explicit	—positive reinforcement in form of stars —criteria for receiving stars is 100% accuracy on tasks —students aware of rules and behave accordingly —verbal positive reinforcement given infrequently	—content presented mostly by lecture and students' reading —math mainly teacher directed —social studies mainly independent work —no individualization in presentation to students or groups of students	—content practiced mostly in writing —materials, texts, workbooks, some games in learning centers —students usually practice content individually	—content tested by written exams only

Material adapted from and used with permission of the Pittsburgh Child Service Demonstration Center

GUIDELINES FOR OBSERVATION: OBTAINING STUDENT INFORMATION

	YES	NO
Does the student understand the meaning of most directions on worksheets and tests?	✓	
Does the student complete assignments on time?		✓
Does the student organize assignments?	✓	
Does the student take notes from a lecture or text?		✓
Does the student find information in a text?		✓
Does the student follow oral directions?		✓
Does the student pay attention to a lecture?	✓	
Does the student attend when demonstrations or audiovisual materials are used to supplement a lecture?	✓	

How does the student best demonstrate knowledge—orally, or in writing? orally

How does the student learn best—large groups? small groups? small group

	YES	NO
Does the student need much reinforcement to work? (Describe)		

Seems to enjoy reinforcement but does not seem to need more than others.

	YES	NO
Does the student need much teacher direction to work? (Describe)	✓	

Needs help to stay on task during social studies—when answering questions on worksheets.

How does the student interact with other students? (Describe)

Gets along well with other students, seems confident.

IEP TEAM

"Task functions"—

1.

2.

3.

4.

5.

"Maintenance functions"—

1.

2.

-
-
-
-
-

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Determining Appropriate Placement

A Continuum of Educational Placements—

Least restrictive 1.

2.

3.

to 4.

5.

6.

7.

Most restrictive 8.

SOME POSSIBLE FACTORS IN BIASED DECISION MAKING—

1.

2.

3.

4.

5.

6.

7.

Others? List any additional issues not previously mentioned.

PARENT INVOLVEMENT

1.

2.

3.

4.

5.

IEP ANNUAL GOALS

1.

2.

3.

4.

SHORT-TERM OBJECTIVES

1.

2.

3.

4.

5.

6.

ACTIVITY
IDENTIFYING PARTS OF SHORT-TERM OBJECTIVES

Identifying terminal behavior statements.

Underline the observable terminal behavior in each of the objectives. Remember to underline the entire action phrase.

1. Using only one hand, learner will bounce a basketball for 10 seconds without losing control of the ball.
2. In 10 consecutive trials, student can tie his own shoelaces in a bow without assistance 80% of the time.
3. Learner uses toilet without assistance for one week.
4. Given a thread and an average-sized needle, learner can thread needle within 20 seconds.
5. Given a large-mouthed glass and a half-pint carton of milk, learner pours milk into glass without spilling.

Identifying condition statements.

Double underline the conditions in each behavioral objective.

1. When asked, learner can hop on one foot five consecutive times.
2. Learner can stand erect for one minute without losing balance.
3. Given a visual model, learner can print his name correctly on a sheet of paper without missing or reversing any letter.
4. Learner can catch a 10-inch ball when it is tossed from a distance of 10 feet in three out of four trials.
5. During one week without being reminded, student says "thank you" when given the morning snack at least four out of five times.

Identifying criterion statements.

Place parentheses around the criterion in each behavioral objective.

1. When asked to put on his coat, the learner will do so within 30 seconds.
2. In six out of eight trials, learner can dial his number on a telephone.
3. The student will read at grade level by the end of the school year as judged by the Wide Range Achievement Test.
4. Learner is successful each time he buttons his coat.
5. Student can wash lunch plates clean enough so that plates do not need to be rewashed.

Identifying all parts of a written objective.

Underline the terminal behavior. Double underline the condition. Put parentheses around the criterion in each behavioral objective.

1. The child will set a place setting correctly when presented with a napkin, glass, plate, knife, fork and spoon 100% of the time.
2. When descending or ascending the stairs, the child will walk to the right side and place his right hand on the railing 100% of the time.
3. When a child is called by an adult to come (i.e., "____________________, come here"), the child will go to the adult requesting his presence within one minute of the initial request for nine out of ten trials.

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IDENTIFYING PARTS OF SHORT-TERM OBJECTIVES

Underline the terminal behavior. Double underline the condition. Put parentheses around the criterion. If the part is incomplete or missing, rewrite the objective to include the part.

1. Given 50 multiplication problems in the form (a × b = c), Dan will write the answers within 10 minutes with 90% accuracy.

2. After completing a unit on Afro-American culture, Carla will match six African tribes with the region from which they came.

3. George will shoot seven out of 10 baskets.

4. Given a scale, a set of gram weights, a data sheet and five different objects, the student will weigh each object.

5. Given an application blank, Sue Ellen will fill out all parts of the form correctly.

6. Keith will be able to take the bus from his home to his work-study situation each weekday for one week.

INDIVIDUALIZING INSTRUCTION

1.

2.

3.

4.

5.

6.

7.

8.

OTHER INSTRUCTIONAL STRATEGIES

1.

2.

3.

4.

5.

6.

7.

LEAST RESTRICTIVE ENVIRONMENT

1.

2.

RELATED SERVICES

Other Student Needs

1.

2.

3.

PLACEMENT OPTION WORKSHEET

STUDENT: ______________________________ DATE: __________

OPTION: ______________________________

1. Describe the extent to which the option meets learning needs listed on the IEP.

   A. Curriculum: ______________________________

   B. Related Services: ______________________________

   C. Special Media and Materials: ______________________________

   D. ______________________________

   E. ______________________________

   F. ______________________________

2. Describe the degree of integration with non-handicapped students provided by this option (academic and/or non-academic settings) and the option's proximity to the student's home.

   ____

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DECISION SUMMARY CHECKLIST

STUDENT ____________________ DATE: __________

PLACEMENT OPTION	LEARNING NEEDS						EDUCATION WITH NON-HANDICAPPED STUDENTS		
	Curriculum	Related Services	Media & Materials				Academic	Non-academic	Proximity to home
1.									
2.									
3.									

Recommended Assignment:

IEP SUMMARY OF STUDENT NEEDS

A. CURRICULUM
  1. Self-help - shoe tying
  2. Gross motor skills - mobility with walker assistance.
  3. Communication skills - use of 3 (4) word phrases.

B. RELATED SERVICES
  1. Transportation
  2. Physical Therapy
  3. Speech Services

C. MEDIA MATERIALS
  1. Walker or Rolator

D. LEARNING STYLE
  1. Small group instruction

E. PHYSICAL CHARACTERISTICS
  1. Handrail, ramps
  2. Modified tables

PLACEMENT OPTION DESCRIPTION

FULL TIME TMR CLASS IN AN ELEMENTARY SCHOOL

OPTION 1

The TMR class has a ratio of one teacher and an aide
learning style to twelve students. Small group instruction is pro-
curriculum vided in academic readiness skills and language.
In addition, training is provided in the areas of
curriculum self help, pre-vocational, vocational, and sociali-
zation skills. Student ability levels in social
and academic areas range from 3.5 to 6.5 years.
Art, music and physical education are also pro-
vided. Media and materials that are appropriate
media/materials for a moderately handicapped student are
accessible in the classroom. Teaching strategies
learning style include positive reinforcement, small group
instruction and task analysis.
The school provides speech, adapted physical
related services education, health and transportation services.
physical characteristic Presently, it is not equipped to accommodate non-
ambulatory students. Non-handicapped students
are reverse mainstreamed into the classroom.
The program is 10 minutes by bus from
Roaslie's home.

INTERMEDIATE UNIT CLASS FOR MULTIHANDICAPPED IN A SPECIAL FACILITY

OPTION 2

The curriculum includes academic readiness skills,
curriculum mathematics, language arts, self-help, pre-vocational
skills, art, music and physical education. Student
ability levels in social and academic skills range
media/materials from 2.5 years through 5.5 years. Special media and
materials are available, including modified eating
utensils and communication devices.
learning style Teachers and aides utilize strategies of small
group and individual instruction, behavior
management, positive reinforcement, and peer
interaction. Teacher/pupil ratio is eight
students to one teacher and two aides.
related services Itinerant services are provided for speech
and physical therapy. In addition, the school
provides transportation and health services.
physical characteristic Modifications have been made in architecture
and transportation to provide a barrier-free
environment for the student. Standing tables,
materials wheelchairs, railings, and ramps are accessible
for maximum mobility.
The school is twenty minutes by bus from
Rosalie's home.

INDIVIDUALIZED EDUCATION PROGRAM PLAN

Date for review of the IEP Plan:

Student's Name: Rosalie Murphy
Present Date: September 30, 1978
Parents'/Guardians' Names:
Date of Birth: April 16, 1968
Parents' Address:
School District:
I.U.:
Phone:
School:
Grade/Program:
Person Responsible for Maintenance and Implementation of IEP:
Phone:

Class Assignment(s) and Services	Date Started	Expected Duration	Extent of Participation in Regular Education	Staff
Bus transportation				
Physical therapy				
Speech services				

IEP Planning Meeting Participants:

1 Local Education Agency Representative	Ms. Lauri Maxwell	
2 Parents, Guardians, or Surrogate Parents	Mrs. Sally Murphy	
Student		
1 Teacher	Kathy Warick	
3 Evaluator	Michelle Wilson	
Other		

1 Must attend
2 If the Parent, Guardian or Surrogate Parent does not attend, documentation of attempts to gain their their participation should be attached.
3 Must attend if the student is newly identified as exceptional. This individual may be a member of the evaluation team or another person who is knowledgeable about the evaluation procedures and results.

TRAINER INFORMATION
"Rosalie"

Instructional Area: Self-help Skills

Present Educational Levels: Rosalie can place her shoes on the correct feet, cross her shoelaces, and pull them tight. However, she needs physical prompte to complete making the bow.

Rosalie is toilet trained and can feed herself.

Annual Goal: Rosalie will independently tie her shoe.

Short-term Objective (Terminal Behavior)	Optional Instructional Methods/Media/ Materials	Evaluation of Instructional Objectives		Duration of Objectives (Optional)	
		Evaluation Procedures To Be Used (Conditions	Criteria of Successful Performance	Date Started	Date Completed
1. With the use of physical and/or verbal prompts, Rosalie will tie a single loop knot. 2. Rosalie will independently tie a single loop knot. 3. Rosalie will independently tie a double loop knot.		1-3. Frequency of performance on objective	1. 90% independence/ 10 consecutive trials. 2-3. 90% accuracy/ 10 consecutive trials.		

Instructional Area: Psychomotor Skills

Present Educational Levels:

Gross Motor: Rosalie can sit unaided and can stand, with support, for approximately twenty minutes. She is ambulatory when given total physical assistance. Rosalie can use a wheelchair independently.

Annual Goal: Rosalie will increase mobility in the classroom using a walker or rolator.

	Optional	Evaluation of Instructional Objectives		Duration of Objectives (Optional)	
Short-term Objectives (Terminal Behavior)	Instructional Methods/Media Materials	Evaluation Procedures To Be Used (Conditions)	Criteria of Successful Performance	Date Started	Date Completed
1. While standing at a handrail, Rosalie will alternate sliding her feet forward and backward.	Handrail	1. Physical therapist and teacher documentation of performance.	1. 90% independence/5 consecutive days.		
2. While standing at a handrail, Rosalie will alternately raise and lower each foot approximately three inches from the floor.	Handrail	2. Physical therapist and teacher documentation of performance.	2. 90% independence/5 consecutive days, given verbal prompts.		

Instructional Area Continued: Psychomotor Skills, continued

	Optional	Evaluation of Instructional Obj.		Duration of Objectives (Optional)	
Short-term Objectives (Terminal Behavior)	Instructional Methods/Media/Materials	Evaluation Procedures To Be Used (Conditions)	Criteria Successful Performance	Date Started	Date Completed
3. Rosalie will move from the story area to the door (approximately 4 feet), using the sliding motion forward.	Walker or Rolator	3. Teacher observation.	3. 90% independence/10 consecutive days.		

Instructional Area: Academic Achievement

Present Educational Levels:

Communication Skills: Rosalie attends to verbal stimuli. She identifies pictures of nouns, verbs, and 16 out of 25 adjectives. She is able to follow a two-step command. Rosalie names approximately 35 objects. She can initiate adjective-noun phrases when responding to "What is this?" Spontaneous speech consists of one and two word phrases. Intelligibility, volume, and rate are within normal limits.

Annual Goal: Rosalie will improve communication skills.

Short-term Objectives (Terminal Behavior)	Optional Instructional Methods/Media Materials	Evaluation of Instructional Objectives		Duration of Objectives (Optional)	
		Evaluation Procedures To Be Used (Conditions)	Criteria Successful Performance	Date Started	Date Completed
1. Rosalie will increase her production of 3 (4) word phrases in a one to one setting.	Emerging Language Program	1. Performance on task.	1. 90% accuracy/ 5 consecutive sessions.		
2. Rosalie will increase her production of 3 (4) word phrases in spontaneous speech.	Small group activities	2. Performance on task.	2. 90% accuracy/ 2 consecutive weeks.		

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DECISION SUMMARY CHECKLIST

STUDENT: Rosalie Murphy DATE: September 10, 1979

PLACEMENT OPTION	LEARNING NEEDS						EDUCATION WITH NON-HANDICAPPED STUDENTS		
	Curriculum	Related Services	Media & Materials	Learning Style	Physical Char.		Academic	Non-academic	Proximity to home
1. TMR class - Elementary School	✓	-Physical Therapy	✓	✓	-ramps -railings		0%	10%	10 min by bus
2. I.U. MH Class - Special Facility	✓	✓	✓	✓	✓		0%	0%	20 min by bus

Recommended Assignment: Intermediate Unit class for multi-handicapped.

PLACEMENT OPTION WORKSHEET

Student: Rosalie Murphy Date: Sept. 10, 1979

Option: I.U. Class for Multi-Handicapped

1. Describe the extent to which the option meets learning needs listed on the IEP.

   A. Curriculum: Classroom teacher will plan and implement self-help program and will follow through with gross motor and communication programs initiated by therapists.

   B. Related Services: Itinerant speech therapist will plan and implement communication programs. Itinerant physical therapist will plan and implement gross motor programs. Modified transportation is available.

   C. Special Media and Materials: Walker provided in the classroom.

   D. Learning Style: Small group settings used for academic readiness skills, socialization activities.

   E. Physical Characteristics: Facility is equipped with ramps, handrails.

   F.

2. Describe the degree of integration with non-handicapped students provided by this option (academic and/or non-academic settings) and the option's proximity to the student's home.

Special facility has no regular education students and is located 20 minutes by bus from Rosalie's home.

RESOURCE GUIDE

RESOURCES FOR PRE-REFERRAL PHASE

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RESOURCE MATERIAL FOR COMPREHENSIVE INDIVIDUAL ASSESSMENT PHASE

Psychologies and Concepts of Development

Romanticism and the Maturational View of Development

Given the central theme of romanticism that health, growth, and development are the same, it is easy to see how the concept that development is primarily maturational in nature became associated with this philosophy. Although this concept was *implied* in the tenents of romanticism, the major impetus for considering development as biologically determined was Darwin's theory of evolution and Herbert Spencer's use of the evolutionary principle as a basis for delineating the doctrine of "recapitulation." The recapitulation theory contends that the child in his or her growth and development, as the fetus in the womb, manifests the same *stages* of development through which the entire species has evolved over the years. In other words, underlying developments are biological predispositions.

The basic features of the Maturational Theory. The Maturational Theory is based on three concepts.

1. Development unfolds through predetermined and prepatterned stages.
2. Individual variations in the rate of development are largely inborn.
3. Developments within separate areas (motor, socio-emotional, language, etc.) are not considered manifestations of some general, more basic process. They have independent developmental histories.

Interplay of maturation and the environment. According to Cowles (1973), "Each child is thought to be born with a full set of genes to guide his development. Given the proper nourishment and physical psychological setting, he will achieve each stage of growth and development on a predetermined schedule. Therefore, environmental experiences influence only (a) the relative ease with which each developmental stage unfolds and the fullness to which it unfolds, and (b) the particular shape which more general development patterns take; for example, the general patterns of language might be particularized to "English." Psychological maturation is the main mechanism of development" (p. 490).

Major proponent of the Maturational Theory: Arnold Gesell. According to Gesell (1954), "The so-called environment, whether internal or external, does not generate the progressions of development. Environmental factors support, inflect and specify; but they do not endanger the basic forms and sequences of ontogenesis" (p. 354).

Gesell used the terms *stage* and *sequence* to designate the rough ordering of *discrete* behaviors within a general dimension (e.g., motor). He used a *normative* approach to describe the ordering of behaviors—an approach underlying many if not most referenced tests.

Cultural Transmission and the Learning Theory View of Development

One of the few views of development among the current family of learning theories that bears resemblance to Lock's theory of the importance of the environment in shaping development is the notion that associations underlie the learning process.

According to Locke, learning occurs through the association of ideas and thoughts. Elements, objects, and concepts that co-occur, or that occur in sequence, become associated with one another. Eventually, one member of a pair naturally prompts the occurence of the other.

Two aspects of this model of learning (the emphasis on Observable Behavior and Reinforcement) were subsequently changed or modified in learning theory as it is known today. For example, John B. Watson (1910) contended that although learning occurs through associations, only the study of *overt, observable* behaviors belongs in psychology. Edward L. Thorndike (1911) stated that "Of several responses made to the same situation, those which are accompanied or closely followed by satisfaction . . . will, other things being equal, be more firmly connected to the situation so that, when it recurs, they will be more likely to recur; those which are accompanied or closely followed by discomfort . . . will, other things being equal, have their connection with that situation weakened, so that, when it recurs, they will be less likely to occur. The greater the satisfaction or discomfort, the greater the strengthening or weakening of the bond."

The basic principles of Learning Theories.

1. The "basic" elements of learning are *stimuli* and *responses.*
2. Behavior is learned.
3. Learned behavior is the result of many independent learning processes.
4. The unit of behavior is the specific act, and each act is independently acquired. (This implies that any combination and any sequence of behaviors can be learned—ADDITIVE NOTION).
5. Behavior is learned through external reinforcement.

Interplay between maturational/biological factors and the environment. Proponents of the learning theory approach do not deny that biological factors impinge on development. However, because the emphasis of this approach is on "how behavior is learned" and because learning is considered to occur as a result of external reinforcement, the influence of the environment is considered crucial for explaining developmental growth.

Progressivism and Cognitive-Developmental View of Development.

Dewey's advancement of the Progressive ideology predated Piaget's theory of cognitive development by about 20 years. The merging and integration of the two approaches required a considerable amount of time; perhaps this accounts for the relatively recent popularity of the model of development based on their perspectives of intelligence and growth.

Although both Dewey and Piaget have attempted to discard the dichotomy that exists between the maturational and learning theory approaches to development, both have generally been considered to be of the maturational or organismic persuasion. This perspective of the orientation of these two philosophers is considerably distorted. The position Dewey and Piaget advocate is best described as INTERACTIONIST. The central features of this perspective of development are that (a) development occurs as a function of environmental-organismic interactions, and (b) the development that occurs as a result of such interactions represents hierarchical reorganizations of psychological structures.

The basic features of Piaget's cognitive-developmental theory.

1. Development is sequential and hierarchical.
2. Development is integrative in nature.
3. Successive levels or stages of development represent reorganizations of previously acquired behaviors.
4. Behavioral and psychological acts are manifestations of a more general cognitive process. Separate cognitive acts are structurally related.
5. Development is described in *process-oriented* and *qualitative* terms.

Interplay between maturation and environment. According to Piaget (1952), "the reflex, no mattter how well endowed with hereditary physiological mechanisms, and no matter how stable its automation, nevertheless needs to be used in order to truly adapt itself." (p. 29).

Also according to Piaget (1918), "The environment and not the living creature, or anything in it, is the source of the variation." As can be seen from these two quotes, Piaget clearly recognizes the importance of the environment in fostering developmental growth.

Nature of Motivation

Romanticism

Motivation is *intrinsic* but amorphous (having no determinate form) and static. "Static" refers to the fact that what motivates an organism to act does not change through the life span. *Growth, being spontaneous, is evoked as the reason the child acts.*

Progressivism

Motivation is *intrinsic but metastatic*. "Metastatic" means that what motivates a child to act differs at the different levels of development. A notion akin to this view is J. McV. Hunt's (1961) "problem of the match."

Cultural Transmission

Motivation is *extrinsic and metastatic*. The effectiveness of reinforcers in maintaining or eliminating the occurrence of behaviors varies at different levels of development.

Function of Education

According to Kohlberg and Mayer (1972), the aims and functions of education within the three basic ideologies are as follows:

Romanticism

Education should allow the child to work through aspects of emotional development not allowed expression at home. Education should allow the expression of intellectual questioning and curiosity.

Progressivism

Education should nourish a child's natural interaction with both society and the environment with the goal that he or she will attain the highest level of development in adulthood. Knowledge is viewed as an active change in patterns of thinking brought about by experimental problem-solving situations.

Cultural Transmission

The aim of education is the transmission to the present generation of the bodies of information and rules collected in the past. The emphasis is on teaching the child skills, habits, and behaviors valued by the larger society.

Nature and Role of the Child

Romantiscism

The child is viewed as an active organism, and activity is seen as an expression of biological predispositions. Development occurs through a natural course and is inner-directed.

Progressivism

The child is viewed as an active organism whose activity is maintained as a direct result of the interaction between the child and environment.

Cultural Transmission

The child is viewed as a passive organism. Behavioral acts are evoked from the child via discriminative stimuli and maintained by reinforcement.

Nature and Content of the Curriculum

Romanticism

The curriculum is designed to enhance and foster the child's natural tendencies through self-directed activities. In the traditional application of this approach, the content of the curriculum is generally organized around central themes or general topics (family, community, art, etc.).

Mode of Instruction

Romanticism: Unstructured Free Play.

The child is placed in a nonoppressive, enriched environment. Few demands, other than a predetermined schedule, are placed upon the child.

Progressivism: Guided Learning.

The child is given ample opportunity to interact with his or her environment, but *the types of experiences afforded are carefully selected*, and the child is guided through development by introducing experiences which optimally challenge the child's cognitive abilities.

Cultural Transmission: Directed Learning.

The child's experiences are chosen for him or her, and he or she is taught to give or perform preselected "correct" responses to discriminative stimuli.

Child-Teacher Interactions

Romanticism: Unidirectional—The teacher primarily responds to the child's initiations.

Progressivism: Transactional—Both child and teacher respond and interact with each other in a reciprocal manner.

Cultural Transmission: Unidirectional—The child responds to teacher-directed instruction.

Utility of the Basic Educational Ideology Information

The usefulness of the information presented above for assessment purposes should now be apparent. Knowledge of the philosophical basis of the assessment procedure being used permits the psychologist to relate assessment directly to instructional derivatives (nature of motivation, role of teacher, etc.). For example, criterion-referenced tests emphasize primarily *product* learning and thus reflect a Cultural Transmission perspective of development. Learning of such *products* would most likely occur using some form of programmed instruction. Moreover, knowledge of the philosophical basis of the criterion test permits recognition that contrasting developmental viewpoints are incompatible with the assessment approach. Thus, if a child is referred because of a failure to acquire some criterion level of performance by a teacher who emphasizes and stresses a behavioral approach to learning, the use of Piagetian tests would not be recommended. The underlying assumptions of the ideology are incompatible with the teacher's ideology, and he or she would not be likely to accept or follow through on any recommendations that were made. *This is the most important implication of knowledge of tests and their philosophical bases.* Not only can we *match* the assessment tool to the particular philosophical problem of the child, but we can *match* the assessment tool to the particular philosophical persuasion of the teacher. This ensures or at least increases the probability that the teacher will follow through on recommendations.

A second implication of relating assessment to particular educational ideologies is that the psychologist, as part of his or her assessment of a child, not only is assessing current developmental performance, but also is relating the assessment results to subsequent issues like the teacher's role in the remediation process. This approach to developmental assessment stresses the OVERALL assessment of child, teacher, environment, etc., in terms of DIRECT implications for modifying and changing behavior. THIS IS THE MAJOR PURPOSE AND GOAL OF DEVELOPMENTAL ASSESSMENT. This portion of the training module provided an overall perspective of how this type of assessment might be accomplished. In summary, we (a) gather preferred information, (b) assess the child, (c) interpret the data, and (d) relate the assessment results to our intervention efforts. The presentation of different assessment techniques and different educational ideologies was designed to illustrate that there is no "correct" way to accomplish this. Assessment as was described as part of the model presented in Transparency 2, must be multidimensional and fit the needs of the child. Developmental assessment never fits the child to the assessment process.

Perspectives on Motor, Language, and Cognitive Development

In this final section, we briefly examine three theories and models of development to illustrate the implications of each in terms of assessment.

Shirley's Developmental Motor Progression

Table 1 presents what Shirley (1931, 1933) considered a genetically based sequence of steps in the genesis of locomotor performance. According to this model, each behavior in the sequence logically follows the preceeding developmental landmark in a "lock-tight" age progression. Shirley contended that the age at which the landmarks emerged were genetically predetermined and were not affected by experience or training.

Table 1
DEVELOPMENTAL SEQUENCE
IN BIPEDAL LOCOMOTION

Developmental Landmark	Approximate Age
Fetal posture	0 mo.
Chin up	1 mo.
Chest up	2 mo.
Reach and miss	3 mo.
Sit with support	4 mo.
Sit on lap, grasp object	5 mo.
Sit on high chair, grasp dangling object	6 mo.
Sit alone	7 mo.
Stand with help	8 mo.
Stand holding furniture	9 mo.
Creep	10 mo.
Walk when led	11 mo.
Full to stand by furniture	12 mo.
Climb stair steps	13 mo.
Stand alone	14 mo.
Walk alone	15 mo.

From: Shirley, M. The first two years: A study of twenty-five babies. Minneapolis: The University of Minnesota Press, 1931.

Table 2
PIAGET'S STAGES OF INTELLECTUAL DEVELOPMENT

Stage and Approximate Age	Characteristic Behavior
I. Sensory-Motor Operations	
1. Reflexive (0-1 month)	Simple reflex activity; example: kicking.
2. Primary Circular Reactions (1-4.5 months)	Reflexive behavior becomes elaborated and coordinated; example: eye follows hand movements.
3. Secondary Circular Reactions (4.5-9 months)	Repeats chance actions to reproduce an interesting change or effect; example: kicks crib, doll shakes, so kicks crib again.
4. Coordination of Secondary Schema (9-12 months)	Acts become clearly intentional; example reaches behind cushion for ball.
5. Tertiary Circular Reactions (12-18 months)	Discovers new ways to obtain desired goals; example pull pillow nearer in order to get toy resting on it.
6. Invention of New Means through Mental Combinations (18-24 months)	Invents new ways and means; example: uses stick to reach desired object.
II. Preoperational	
1. Preconceptual (2-4 years)	Capable of verbal expression, but speech is repetitious; frequent egocentric monologues.
2. Intuitive (4-7 years)	Speech becomes socialized; reasoning is egocentric: "to the right" has one meaning—to his right.
III. Concrete Operations (7-11 years)	Mobile and systematic thought organizes and classifies information; is capable of concrete problem solving.
IV. Formal Operations (11 years upward)	Can think abstractly, formulate hypotheses, engage in deductive reasoning, and check solutions.

From Stephens (1972).

Shirley's motor development theory falls within the confines of the ideology of Romanticism. Whether or not one wants to accept the genetically based aspects of the theory, the model nonetheless has direct implications for assessment. Knowledge of the ages at which the various landmarks are acquired permits one to determine the extent to which a child is advanced or retarded in development by comparing a child's age of acquisition of the landmarks against the ages that "most" children attain the developmental progressions.

Piaget's Theory of Cognitive Development

Jean Piaget's theory of cognitive development is a well known and widely used theory. The sequence of stages in Piaget's theory is shown in Table 2. According to Piaget, each stage and substage in the sequence logically follows the preceding stage, and the attainment of each stage is the prerequisite for the attainment of the next stage in the sequence. So, for example sensori-motor abilities are necessary before the child can function at the preoperational level.

By using appropriate assessment procedures, one can determine at what stage of development a child is functioning, and thus be able to identify the type of *cognitive operation* the child is capable of performing. With this knowledge, one is then able to determine whether or not the instructional demands of a teaching situation match the child's abilities. For example, if a child is found to be functioning on a preoperational level, conservation of time sequences like "remembering" and using previous information in a story for drawing conclusions is not likely to be possible for the child. (The bibliography at the beginning of this resource guide on theories of child development references many other sources on models of cognitive development.)

Bloom and Lahey's Model of Language Development

A particularly innovative and useful approach to language acquisition has recently been proposed by Bloom and Lahey (1978). The model emphasizes not only the *sequential* aspects of language but also the *integrative* aspects of language. The model is particularly useful for assessment purposes.

According to Bloom and Lahey, language consists of three parts: *form* (syntactic aspects), *content* (semantic aspects), and *use* (communicative aspects, see Figure 1). In normal language development, each aspect of language has different sensorimotor precursors. When the different precursory behaviors merge, as is graphically presented in Figure 1, the child is considered to have the necessary components for language form, content, and use. The overlap area represents the *integration* and *interaction* of the three components—the result of which is language behavior.

Using this model, Bloom and Lahey distinguished between five types of developmental language disorders. The first type—a disorder in language form—is characterized by a child who uses language and expresses *meaning*, but whose language is syntactically incorrect. This child's disorder would be represented in section B of Figure 1. The second type—a disorder in language content (section C)—is characterized by a child who uses language and whose syntactic structures are correct, but who has a very limited repertoire of words and meaning. The third type—a disorder in language use (section A)—is characterized by correct language form and content, but an inability to use language for communicative purposes.

The fourth type—a disorder in the interaction among use, form, and content—is characterized by the inability to integrate the three components all at a single time. The fifth type is characteristic of children having none of the three components of language—a child manifesting this disorder is typically language delayed.

Bloom and Lahey's model of language development, because of its emphasis on the *major* components of language, is of particular utility for assessment purposes because it permits one to pinpoint the exact nature of the language disorder and not just identify the child as language disabled. It is a model that all psychologists should be familiar with.

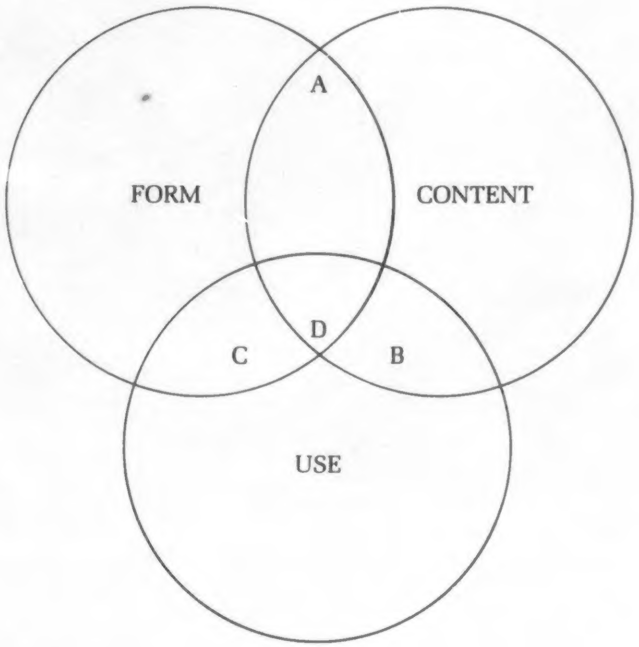


Figure 1. The intersection of content, form, and use in language (From Bloom and Lahey, 1978)

RESOURCE MATERIAL FOR COMPREHENSIVE INDIVIDUAL ASSESSMENT PHASE: SPECIAL CONSIDERATIONS FOR PRESCHOOLERS AND INFANTS

Adapting Tests

Traditionally, psychologists have been well trained in the proper administration of tests and in strict adherence to administration standards. The idea of "adapting" a test is a rather recent idea and is approached cautiously. Adaptation has come out of necessity: children had to be assessed and there were few tests that could be used. Results based on interviews with care personnel had been adequate for placement purposes in the past, but they are not satisfactory to meet the more recent demands of educators for identification of specific strengths and weaknesses or for providing performance data that can be used in planning and evaluating intervention effectiveness. In some ways the problem is more accentuated when psychologists assess handicapped infants and young children; they are simply less familiar with the standard tests, the standard testing procedures, the behavioral expectations and the range of variability.

The question remains: when does one adapt an item and how does one score or use the data? When changes have been made in the administration of an item or in any requirement of the item, the comparison of performance to norms is invalidated. On the other hand, adaptations may enable one to elicit performance that otherwise would not be possible. Several possible adaptations are particularly useful:

1. Accentuate the visual stimulus through size, contrast, spacing, or separation of figure from background.
2. Substitute a tactile image for the visual image.
3. Use a three dimensional object for a two dimensional image.
4. Accentuate the auditory stimulus through variations in pitch, sound level, or separation of signal from noise.
5. Substitute a less complex signal.
6. Accept a less complex response such as a nod, or eye point, in lieu of a touch.
7. Position the task or the child differently.
8. Substitute a material that is more likely to elicit the same response.
9. Provide more trials.
10. Provide a longer response time.

Other changes can also be made so that responses from particular children are more likely. The examiner's responsibility is to determine if the adaptation should be made, then precisely describe the changes and the results. It is most critical that the child's limitations are taken into consideration and made to interfere much less with the child's performance, while the actual concept or skill being tapped is not altered.

The expanded use of tests that analyze stages of development and understanding of schemes and operations has greatly increased the use of some of the adaptations noted above. In scales such as the Ordinal Scales of Psychological Development (Uzgiris & Hunt, 1975) the concern of the examiner is to determine whether particular concepts are in the child's repertoire. Examiners select the materials and testing conditions, thus individual variations in quality of stimuli and control are understood. Recent acceptance of naturalistic testing environments, such as is seen in language sampling and testing adaptive behavior, also illustrate the wider use of variability within the testing context.

Psychologists who choose to introduce variance into testing and provide information that identifies the conditions for optimal child behavior are going to contribute significantly to the educator. They will be viewed as child oriented in that they offer care personnel far more than a test score. Their careful examination of the conditions that stimulate optimal performance can be translated directly into program planning. Nonetheless, these psychologists have the responsibility to carefully delineate results obtained following formal procedures, and those obtained when adaptations were introduced. Some tests (e.g., *Haeussermann's Developmental Potential for Preschool Children: Developmental Activities Screening Inventory)* include adaptations in the instructors manual. In cases where the adaptations are not in the manual, the examiner will have to record them.

Informal Testing

Much of what is described in the previous section on adapting formal tests is applicable to informal testing as well. In informal testing, however, there will be differences in the source of the task, the persistence of the child, and the examiner's exploration of the child's response to environmental manipulation and systematic instruction. In informal testing the examiner often uses an applied behavior analysis tangent of the assessment-intervention model. For example, an examiner wants to know if a child understands how to construct a three block bridge from seeing it in a picture. After the child's initial failure, the examiner may investigate adaptations such as bigger blocks, verbal cues, modeling, physical assistance, etc. If the data show these changes are not effective, the examiner may determine that the task is too difficult, and performance on a prerequisite skill may be examined. It may be, however, that through the adapted experience, the examiner discovers the conditions that enable the child to perform optimally. The examiner may then be able to report that the child understands that spatial concepts involved in the construction (demonstrated across several situations) but lacks the fine motor skills to manipulate the small blocks provided.

Sensitivity to what is basic in child-object interactions is a critical skill that enables examiners to gather data through informal means. DuBose and Langley (DuBose, 1978), and their students analyzed over 100 typical children's toys and determined the kinds of skills that could be observed as children interacted with each toy. A grid was made for each toy and observers noted the interactions. Figure 2 is an example. Psychologists can easily develop similar observational procedurs by selecting toys that are favorites of infants and toddlers or are highly motivating toys and invite demonstration of particular schemes.

Examining Related Behavior

Statements or decisions about the performances of infants or young children are always tenuous at best. The poor predictability of infant intelligence tests is well known (Lewis, 1976; Horowitz, 1978; Scott, 1978). While this fact remains, other early data have been found to be predictive of later performance. Ramey and his associates (Ramey, Stedman, Borders-Patterson, Mengel, 1978) found birth certificate data, mother's educational background and the month in which prenatal care began to be the best predictors of first grade achievement. More recently, Ramey and Browles (1981) examined factors that predicted identification of high risk infants in a population of black children and found three factors—child's temperament in first six months, mother's democratic attitudes, and time child spent outside the home per week—allowed for the correct prediction of intelligence at age two of 75 percent of the children, with an overall miss rate of 20 percent and a false positive rate of 29.6 percent. These findings suggest that factors other than infant intelligence account for a larger portion of child variance in later intelligence and in academic achievement.

Clarke and Clarke (1976), Sameroff and Chandler (1975), and Hobbs (1975) offer support for a much broader view of human development, particularly as it occurs in the early years. Clarke and Clarke rely on the numerous studies of children who overcome serious early deprivation, thus confirming their plasticity. Sameroff and Chandler espouse the transactional model of human development in which the child and the adult are both influencing their own behavior and also that of the other. Recent studies on abused children (Frodi, 1981; Garbarino, 1977; Helfeur, 1973) confirm earlier reports that the child is a contributor to his or her own abuse. To determine how such critical factors have a direct bearing on the child and the selection of an intervention, it is essential that assessment focus on interactions within an environment and on the specific behaviors of those who directly affect the developing child. Testing the child in a traditional manner is only one portion of the assessment.

Psychologists today are challenged to test the entire ecological milieu. The task is arduous; the script is not written; the materials are not nearly packaged or field tested; the skills cannot be quickly learned through books, videotaped lectures or modules. Yet, such testing promises results that have more validity and can be tied more directly to interventions that will make a difference.

To assist the psychologist in the assessment of child-adult-environment interactions we must refer to observation forms and other procedures that are only recently described in the literature. Table 3 includes a few of these sources.

Figure 2

Observational Grid for Toy Interaction

Musical teeth	Tracks orject	Reach		Grasp		Open mouth	Close mouth	Pushes key		Pushes keys		Ident. colors & parts Rec.	Ident. colors & parts Exp.	Plays keys in order	Creative play	Turns on
		L	R	L	R			L	R	L	R					
Response																
Resists																
Mouths																
Appropriate action																
Bangs/shakes																
Physical guidance																
Verbal/tactual prompt																
Demonstration																
Spontaneous trial and error visual comparison																
	Visual pursuit of object, right, left, up, down diagonal	Attempts to obtain toy, eye-hand, arm extension		Bimanual grasp		Object permanence means/ends hands opposition midline		Means/ends coordination finger extension		Means/ends finger prehension		Language memory long-term association and discrimination		Visual sequential memory finger prehension	Auditory memory color association	Means/ends

Table 3

SELECTED PROCEDURES FOR ASSESSING

Infant-Caregiver and Infant-Environment Interaction

Home Observation for Measurement of the Environment (Caldwell, 1978)
Infant Temperament Questionnaire (Carey & McDevitt, 1977)
Toddler Temperament Scale (Fullard, McDevitt, & Carey, 1978)
ISIS Reciprocal Category System Instrument (Gordon & Jester, 1970)
Teaching and Feeding Scales (Barnard, 1979)
Mother-Child Interaction Coding Schema (Bronson, 1972)
Mother-Child Interaction Scale (Apfel, Barnett, Kearse, & Watts, 1970)
Assessment of Mothering Behavior (Johnson, 1979)
Assessment of Fathering Behavior (Johnson, 1979)
Parent Behavior Progress Forms 1 and 2 (Bromwich, 1981)
Neonatal Behavioral Assessment System (Brazelton, 1973)
Mother's Assessment of the Behavior of the Infant (Field, Dempsey, Hallock & Shuman, 1978)

REFERENCES FOR ASSESSMENT REPORT PHASE

Writing individualized assessment reports in special education: A resource manual. National Association of State Directors of Special Education. Washington, D.C.: December, 1978.

This manual offers a unique and invaluable set of guidelines which creatively and thoroughly answer the question: HOW CAN A MULTIDISCIPLINARY ASSESSMENT TEAM WRITE A SINGLE COORDINATED AND EFFECTIVE REPORT AND IEP?

It offers specific examples of poorly written reports and contrasts these with examples of what comprises a well written MDA report. A comprehensive step-by-step checklist is offered to aid MDA teams in compiling a thorough and well documented report and IEP. The manual concludes with a summary of P.L. 94-142 criteria which are relevant to an MDA team. Appendices offer a "state of the art" article on assessment and an annotated bibliography of other assessment resources.

For current price and availability, write or phone:

NASDE
120 Sixteenth Street NW
Washington, D.C.
202-833-4193

APPENDIX A

Pupil ______________________
D.O.B. ______________________
Center ______________________

Homeroom Teacher ______________________
Date ______________________
Screened by ______________________
____
____

Vision Screening

Physical Observation

_______ Size or shape difference in pupils
_______ Excessive tearing
_______ Cloudiness
_______ Eyes not aligned properly (describe)
_______ Squinting
_______ Blinking
_______ Inflammation or redness
_______ Other (describe)

Materials and Screening Team Needed

1. two penlights
2. lollipop, coke or favorite food (if pupil fails to respond to the penlight any of these stimuli may be used)
3. whiffle ball with string attached
4. spinning toy
5. eye patch and/or cloth drape or adapted glasses
6. three chairs of appropriate size for pupil
7. screening forms
8. pencils
9. N.Y. Lighthouse Vision Screening (as appropriate)
10. screener
11. recorder
12. assistant (if possible)

Administration and Scoring

Place a + in appropriate column for correct response, a – for poor response. If the pupil fails to respond or responds inappropriately, record what you have observed. Items may be repeated three or four times to elicit an observable response.

	Both	Right	Left	Comments
1. Pupillary Reaction (12″)				
2. Muscle Balance (12″)		▨	▨	
3. Convergence (12″)		▨	▨	
4. Can Track at 12″: a) Horizontally →				
b) Vertically ↓				
c) Left Oblique ↘				
d) Right Oblique ↙				
5. Peripheral Field (12″)	▨			
6. Blink Reflex		▨	▨	

7. Distance Vision:
Can localize familiar people at 10′ ☐ Yes ☐ No
Can track familiar people at 10′ ☐ Yes ☐ No
or
Can fixate on a spinning object at 10′ ☐ Yes ☐ No

Procedure

As the pupil enters, he or she is told to "sit down in the chair and look." The screener begins by checking the following:

1. Pupillary Reaction: The penlight is held 12" in front of the pupil's eyes. The light is flashed directly into the eyes, then away. Pupil dilation and contraction are noted.

   Light causes pupil to contract:

   Darkness causes pupil to dilate:

   The screener checks both eyes together by flashing the light in front of the bridge of the nose, then right, then left. If the student's pupils dilate and contract, score a plus in the proper box. If you have a question, score a minus. The screener conveys data to the recorder by saying "positive" for plus and "negative" for minus.

2. Muscle Balance: Again the screener holds the penlight 12" from the pupil's eyes at midline. The light should reflect on the student's pupils if there are no muscle problems. If it is possible to see the light reflected in the center of one pupil and not in the center of the other, this indicates an imbalance and is scored as such.

3. Convergence: Check convergence by moving the penlight from the 12" point toward the bridge of the pupil's nose. The eyes should follow the light to approximately 2" from the bridge of the nose.

4. Tracking: Check horizontal, vertical, right and left oblique on both eyes simultaneously before obscuring the vision of one eye with a patch or drape. Covering one eye can elicit interfering behaviors in some pupils. Left oblique is to the pupil's left; right oblique is to the pupil's right.

5. Peripheral Vision: The recorder or assistant stands behind pupil, turns on the penlight, and brings the light around the side of the pupil's head at a distance of 12". The recorder brings the light forward until the pupil responds by looking at the light. The pupil has adequate peripheral vision if he or she responds by looking at the stimulus as it appears alongside the face.

6. Blink Reflex: The screener says, "Sheila, look at me" and the recorder or assistant produces the blink stimulus. (Whiffle ball on a string is dropped from behind, without pupil's prior knowledge, to within 2" of face.) For the young involved pupil lying on a mat, a quick movement of the screener's hand toward the pupil's face will elicit a blink.

7. Distance Vision:
   a) The screener walks away 10' and calls, "Sheila, look at me." The next direction is "watch me." The screener walks across the field of vision at 10'.
   b) For those pupils whose fixation is questionable, the examiner should activate a spinning toy 10' away from pupil. The pupil should visually fixate on the object while it spins.

If the response to any given item is questionable, you may go back and retest.

Under "Comments", you may include any behavioral descriptions as well as any difficulties with the individual items.

Source: Used by permission. Project APT, Fairfax County Public Schools, Fairfax, Virginia.

R-21

Instructions for Vision Screening

This screening tool is designed to assist in identifying those pupils who may need referral for additional evaluation. It is not intended as a diagnostic instrument or a test for visual acuity. The screening attempts to assess the pupil's ability to use the small muscles of the eyes in a smooth, coordinated manner.

Occluding vision to test eyes individually may produce irritable behavior or even acute anxiety. If this occurs, do not force the pupil to accept an eye patch, but plan to rescreen later. In the interim, the classroom teacher can help the pupil become accustomed to having one eye occluded as well as improving tolerance to touch around the face.

Materials

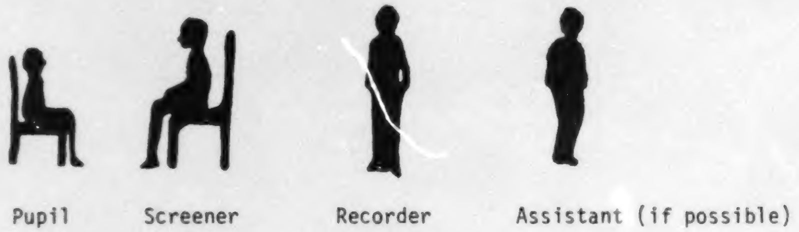
1. two penlights
2. lollipop, coke, or favorite food (if pupil fails to respond to the penlight any of these stimuli may be used)
3. whiffle ball with string attached
4. spinning toy
5. eye patch and/or cloth drape or adapted glasses
6. three chairs of appropriate size for pupil
7. screening forms
8. pencils
9. N.Y. Lighthouse Vision Screening (as appropriate)

Screening Team

The screening team includes a screener, a recorder, and an assistant when needed (if possible).

1. The screener:
   a) presents the stimuli
   b) maintains pupil's level of interest
   c) observes pupil's responses
2. The recorder:
   records data and pupil's behaviors
3. The assistant: (if possible)
   produces stimuli for peripheral vision and blink reflex

Setup



Administration

Administer the screening in a quiet room that can be darkened. If necessary, a screen may be used to eliminate distractions within the room. (The very young severely involved pupil may be adequately screened while positioned on a mat.)

Scoring

Place + in appropriate column for correct response, — for poor response. If the pupil fails to respond or responds inappropriately, record what you have observed. Items may be repeated three or four times to elicit an observable response.

R-22

Pupil
D.O.B.
Center

Homeroom Teacher
Date
Screened by

N.Y. Lighthouse Vision Screening

Distance from Pupil Size & Type of Card	"200" House	"200" Apple	"200" Umbrella	"100" House	"100" Apple	"100" Umbrella	"50" House	"50" Apple	"50" Umbrella	"40" House	"40" Apple	"40" Umbrella	"20" House	"20" Apple	"20" Umbrella	"10" House	"10" Apple	"10" Umbrella
5′																		
10′																		
20′																		

If response is correct, place a + in the appropriate column on scoring sheet.
If response is incorrect, place a – in the appropriate column on scoring sheet.

Comments:

Visual Acuity

Administration

Present the "200" cards at 5'. If responses are correct, present the "200" cards at 10'. At this distance, present the "100," "50," "40," and "20" cards. The test may be completed at 10' by showing the "10" card. This produces the same result as showing the "20" card at 20'.

The test may also be done at the conventional 20' range. However, interest and participation may be higher when both the examiner and the cards are at 10'.

Scoring

If the response is correct, place a + in the appropriate column on scoring sheet. If response is incorrect, place a -.

To determine visual acuity, divide the distance at which all three symbols have been identified by the smallest size of card that was correctly identified, e.g., at 10', the "100" cards were correctly identified. The acuity would then be 10/100 or converted to standard symbols, 20/200.

Source: Used by permission. Project APT, Fairfax County Public Schools, Fairfax, Virginia.